DRUG AND COSMETIC INDUSTRY

MARCH 1940

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The Drug and Cosmetic Industry is published monthly by Drug Markets, Inc., Frazer V. Sinclair, President and Treasurer; Thomas R. Farrell, Vice-president and Secretary. Publication Address, 28 Renne Ave., Pittsfield, Mass., U. S. A. Editorial and General Office, 101 West 31st St., New York, N. Y., U. S. A.

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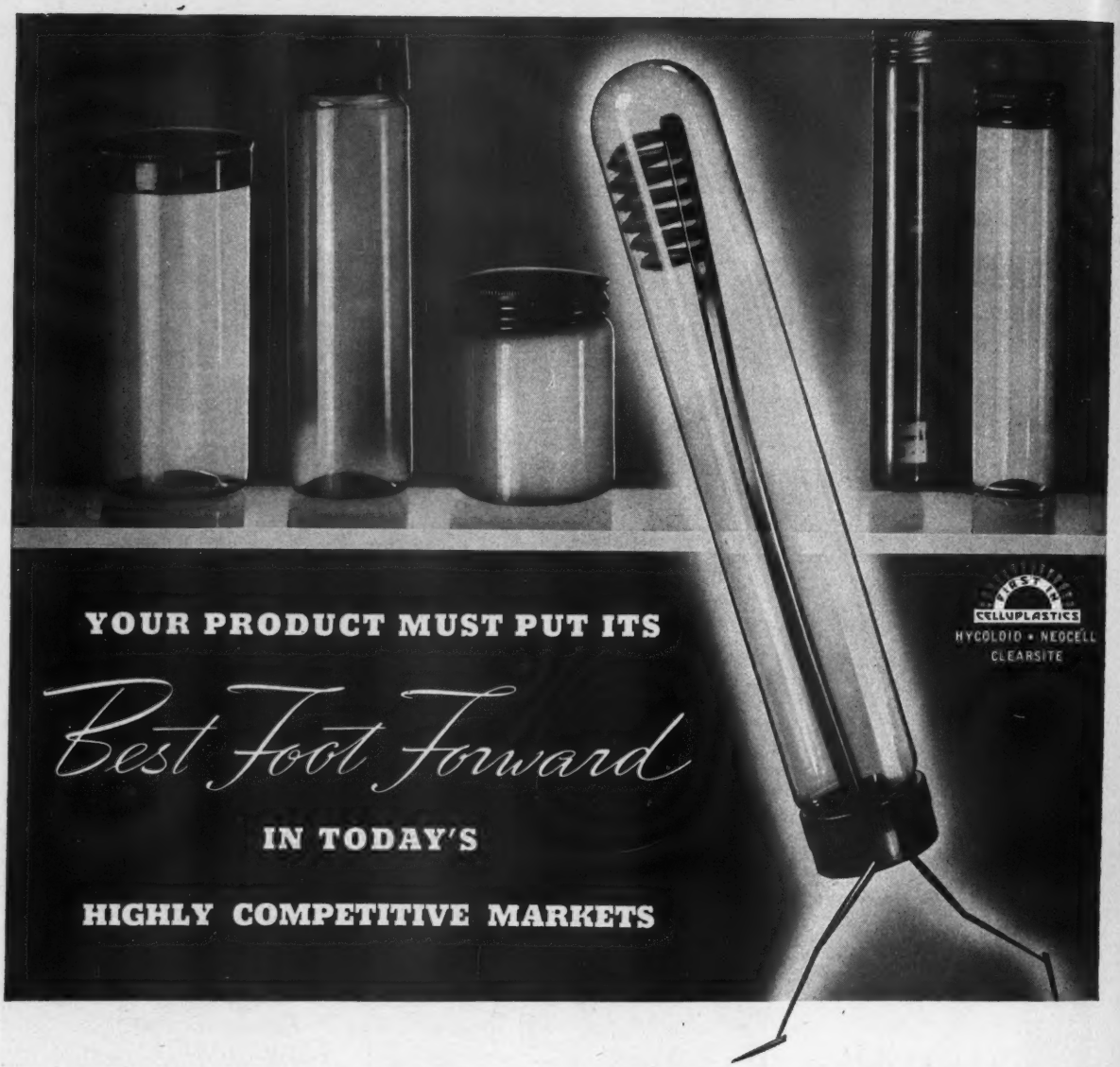

If you could be behind the counter of every store that sells your product, your sales worries would be over. But you can't! Once it leaves your plant your product must sell *itself* except for the help you give it through packaging, advertising and display.

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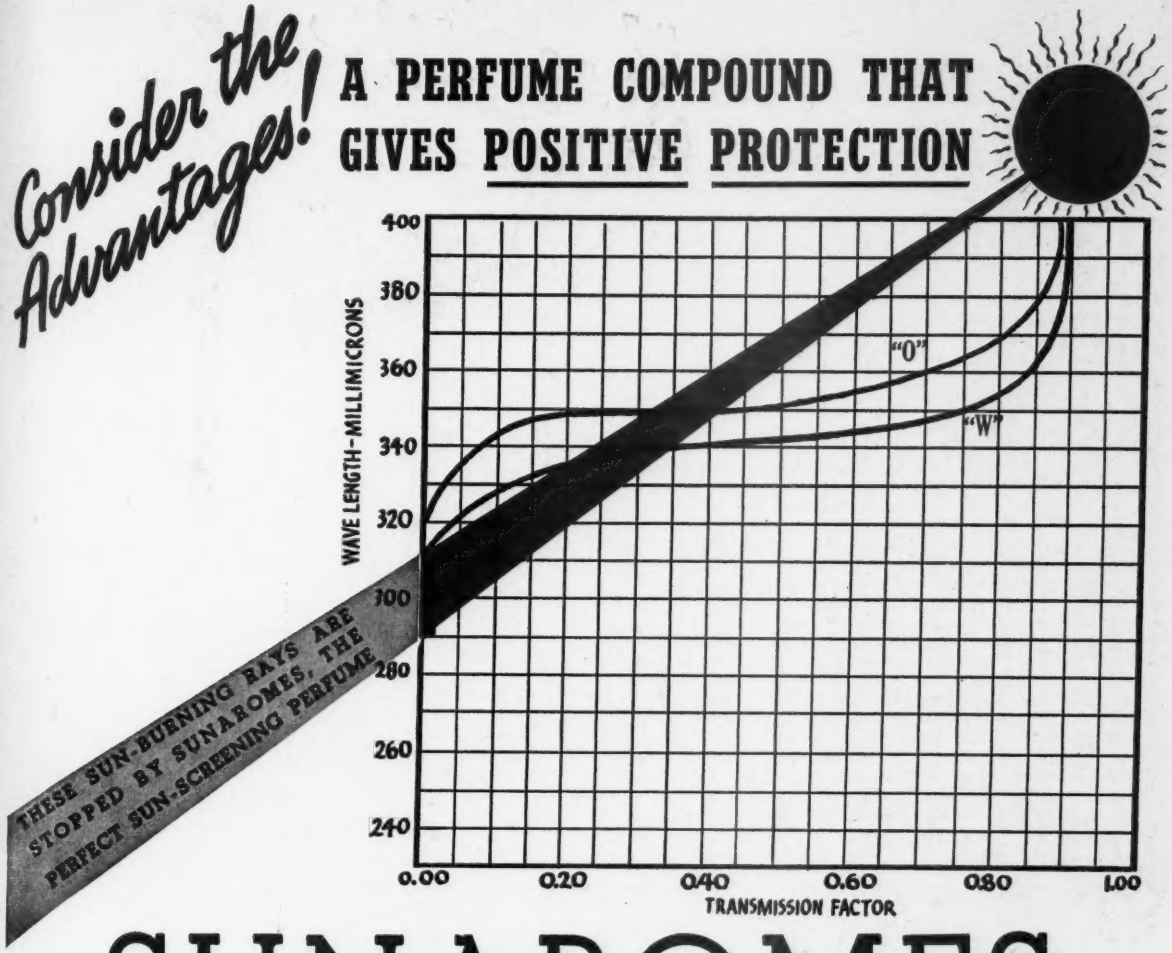

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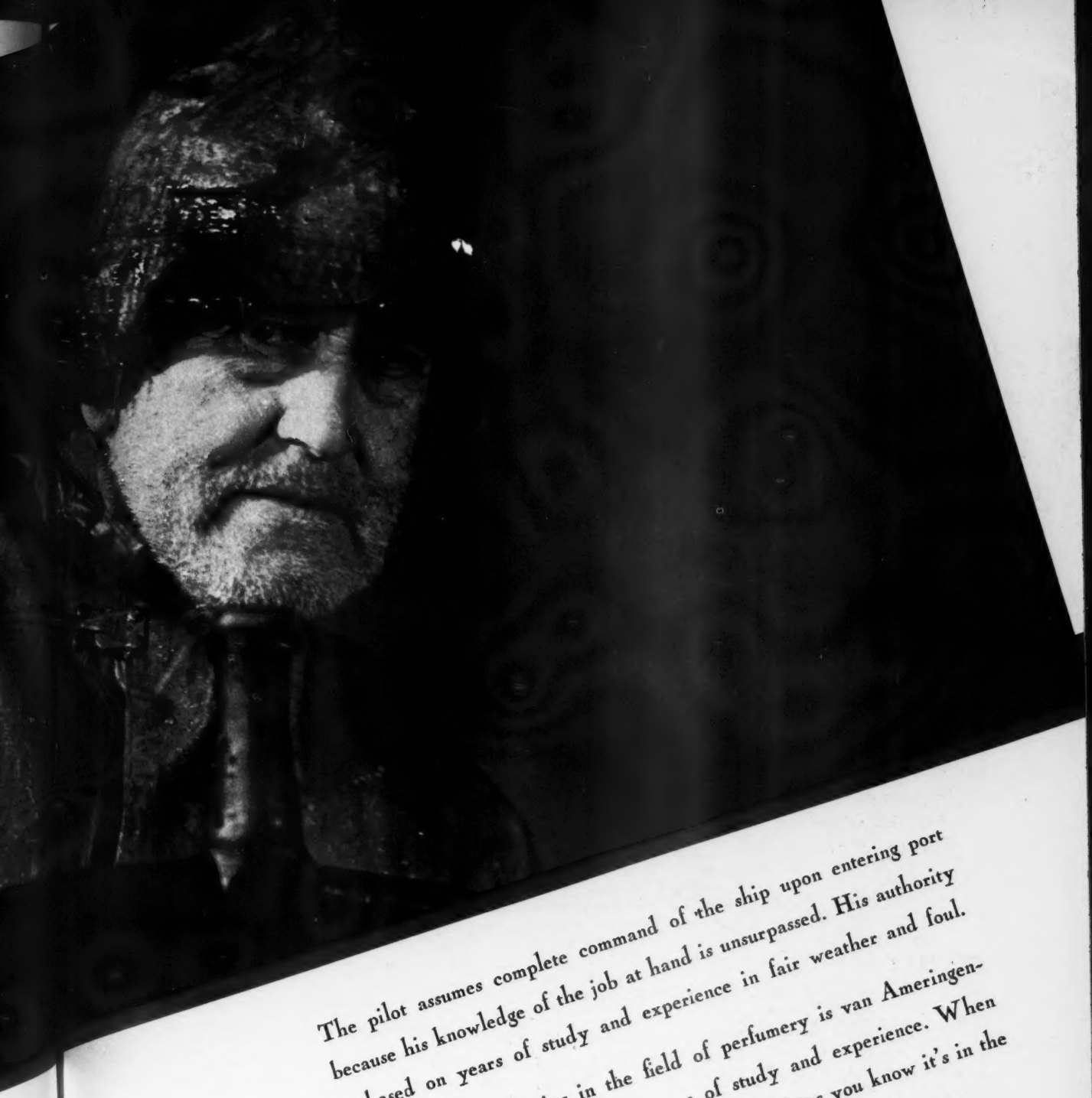

The pilot assumes complete command of the ship upon entering port because his knowledge of the job at hand is unsurpassed. His authority is based on years of study and experience in fair weather and foul.

A recognized authority in the field of perfumery is van Ameringen-Haebler, Inc. based, too, on years of study and experience. When your problem is placed with one of our perfumers you know it's in the hands of a *man who knows.*

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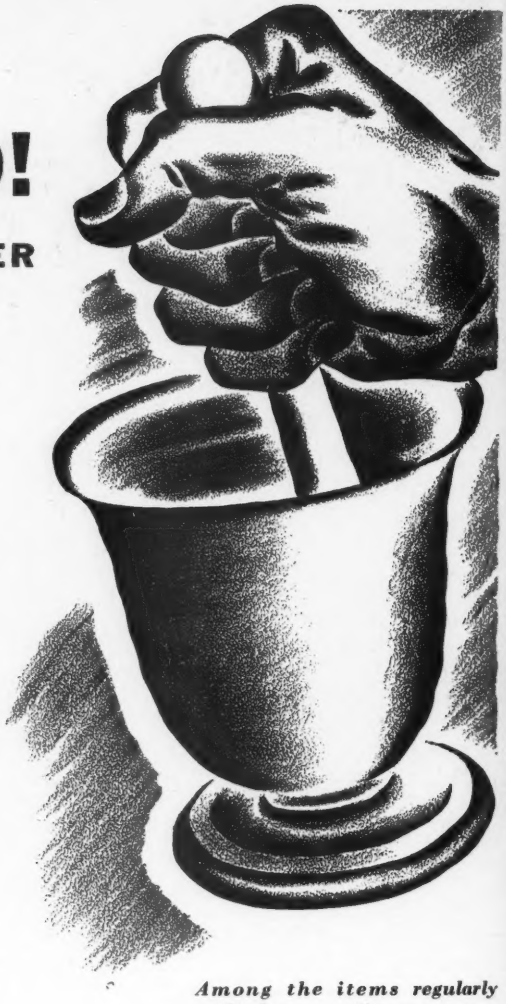

Drug milling today is much more nearly an exact science. As the world's largest botanical house it is but natural that S. B. Penick & Company should be far ahead of the field in plant drug grinding. A whole battery of mills, many especially developed by Penick, assures milling as fine or as coarse as the customer pleases.

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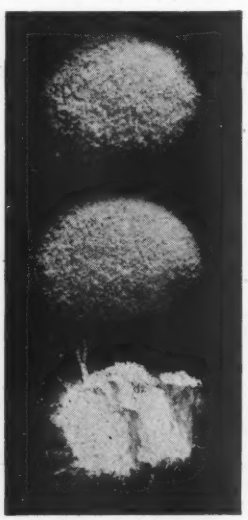
KARAYA
LOCUST
TRAGACANTH

CRYSTALS

GRANULAR

POWDERED



Milling marks but one phase of Penick botanical service. These, too, are important: scientific production, speedy delivery, accurate and complete order filling, lowest market prices.

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PENICK offers Tragacanth gum, one of the most difficult items to grind properly, in a variety of milled forms. Illustrated at left are crystals, granular and powder. We grind as finely or as coarsely as you please.

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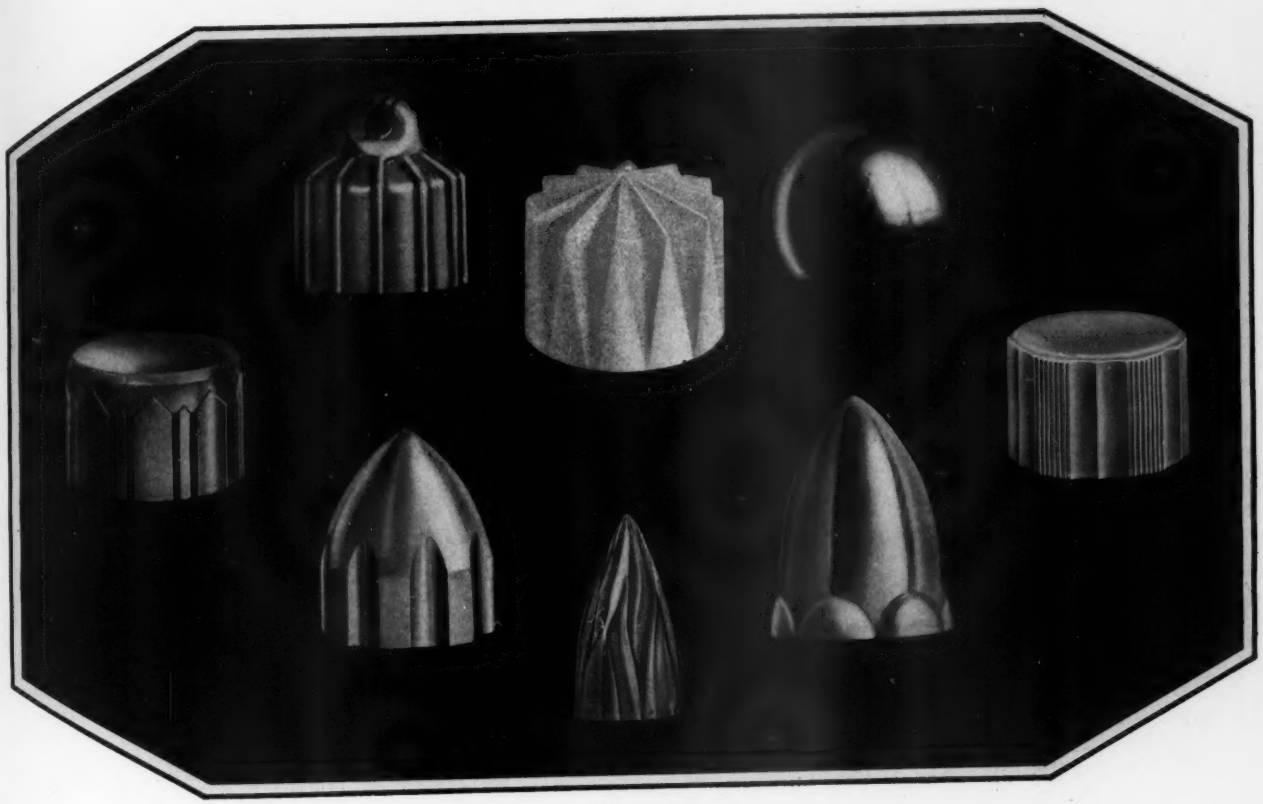

by

VICTOR

MOULDING DIVISION

VICTOR METAL PRODUCTS CORPORATION

200 DIAMOND STREET BROOKLYN • NEW YORK

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KING DESIGN

ALL G. C. A. SIZES

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VICTOR BLUE 26A

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ACE DESIGN

ALL POPULAR SIZES

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VICTOR BLUE 28

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10-425 – 18-410

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VICTOR GREEN 5A

This cap will appear colored in the May issue.

DESIGN No. 70

8-425 – 10-425 – 20-410

The color in which this cap is shown on other side of page is

VICTOR GREEN 23

NOTE: Deliveries on this cap cannot be made before April 1, 1940

DESIGN No. 50

8-425 – 10-425

The color in which this cap is shown on other side of page is

VICTOR MAROON 11A

This cap will appear colored in the June issue.

TASSEL CAP

8-425 – 10-425

The color in which this cap is shown on other side of page is

VICTOR GREEN 4A

This cap will appear colored in the May issue.

FLAME CAP

8-425 – 10-425

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VICTOR RED 24

This cap will appear colored in the April issue.

DESIGN No. 60

15–425

The color in which this cap is shown on other side of page is

VICTOR RED 2

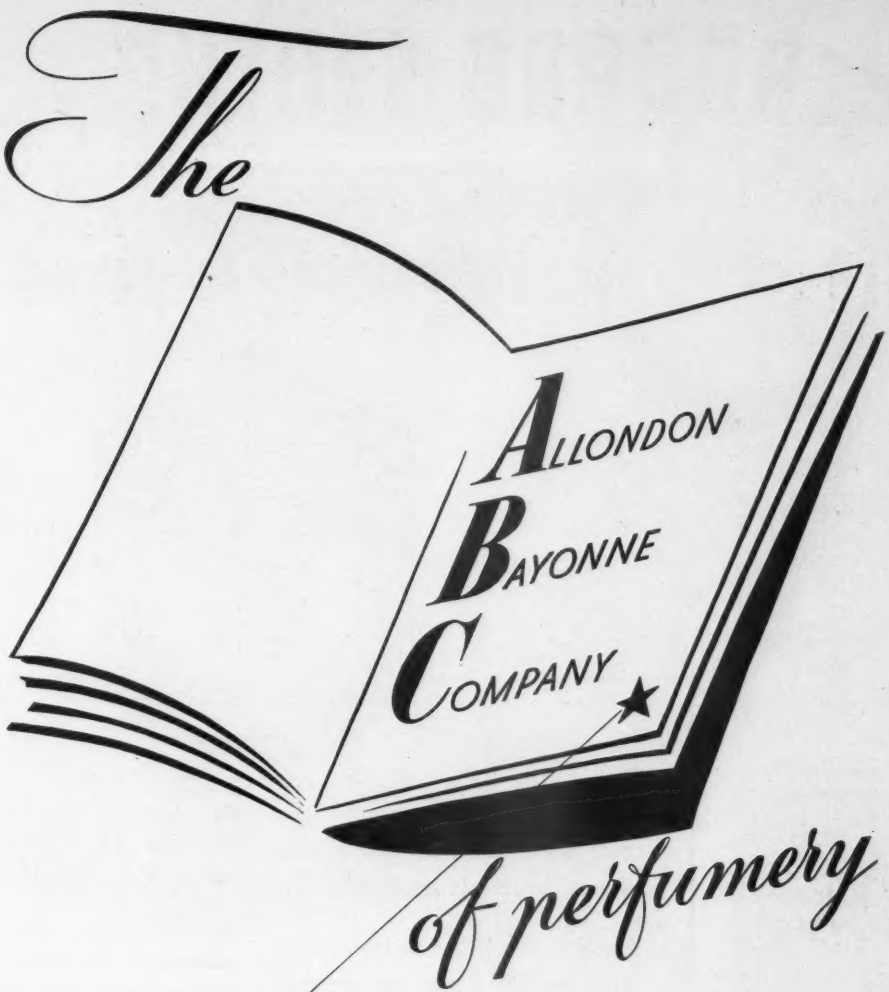
This cap will appear colored in the June issue.

The color shades referred to above and many others are shown by 10 m/m Ace design caps mounted on a stock color card. This card will be promptly mailed upon request.

MOULDING DIVISION

VICTOR METAL PRODUCTS CORPORATION

200 DIAMOND STREET **BROOKLYN • NEW YORK**



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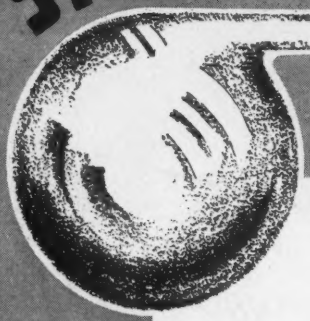

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March 14, 1940

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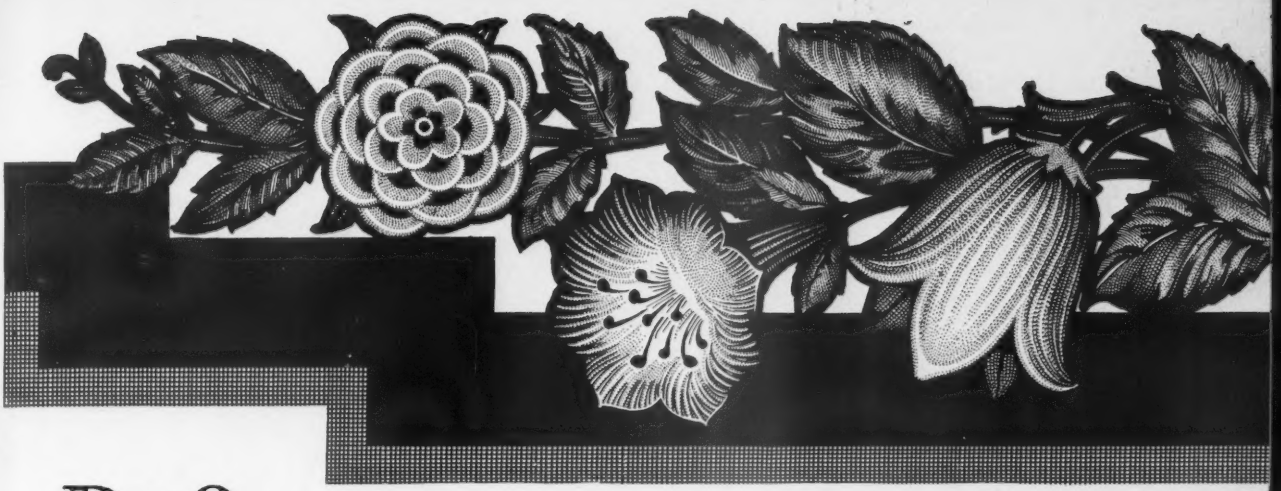

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3

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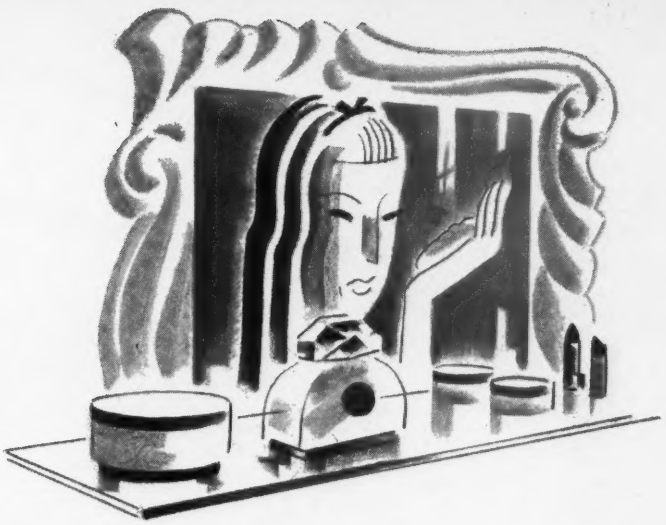

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IN BOTTLES MADE BY

SWINDELL

SWINDELL designers will help you create, and SWINDELL craftsmen will produce individual bottles in accordance with the finest traditions of the glass blowers' art.

Write for designs and quotations:

SWINDELL BROS., BALTIMORE, MD.

200 FIFTH AVENUE, NEW YORK

ROBERTO ORTIZ, HAVANA, CUBA

When you think of bottles think of

Swindell

SPECIFY HEYDEN

The Products listed below include many chemicals originally developed and introduced commercially by the Heyden organization · Traditional policies of continuous development and control are reflected in the purity, uniformity and cleanliness of the compounds offered. Careful packing in sound modern containers protects the high quality to the point of use. Our long years of experience have built up a fund of specialized information which is available as part of our service.

ACETANILID, U. S. P.
Powder

ACID ACETYLSALICYLIC U. S. P.
Crystals 20 or 40 Mesh.
Powder 80 Mesh.
Special Heavy Crystals.

ACID ACETYLSALICYLIC
12 to 50 Mesh.
10% Starch Granulation, White.
10% Starch Granulation, Pink or Green.
16% Starch Granulation, White.
20% Starch Granulation, White.

ACID BENZOIC U. S. P.
Crystals or Powder.

ACID CARBOLIC (Phenol U. S. P.)
Crystals.

ACID SALICYLIC, U. S. P.
Crystals or Powder.

AMMONIUM BROMIDE, U. S. P.
Granular.
Powder.

AMMONIUM SALICYLATE, U. S. P.
Crystals.

BENZALDEHYDE, N. F.

BENZYL CHLORIDE

BENZYL PARASEPT
Powder.

BUTYL PARASEPT
(Butyl Parahydroxybenzoate).
Powder.

CALCIUM BROMIDE, U. S. P.
Powder.

CALCIUM GLYCEROPHOSPHATE, N. F.
Powder.

CALCIUM GUAIACOL SULFONATE
Powder.

CALCIUM SALICYLATE
Powder.

COPPER PROTEIN
(Colloidal Copper Proteinate).
Granular.

CREOSOTE, U. S. P.

CREOSOTE CARBONATE, U. S. P.

ETHYL PARASEPT
(Ethyl Parahydroxybenzoate)
Powder.

FORMALDEHYDE
(Solution Formaldehyde, U. S. P.)

GUAIACOL CARBONATE, N. F.
Crystals.

GUAIACOL CRYSTALS, U. S. P.

GUAIACOL LIQUID, U. S. P.

HEXAMETHYLENETETRAMINE, U. S. P.
(Methenamine).
Crystals, Powder and a Full Line of Granulations.

ICHTHYNAT
(Ichthammol, N. F. VI).

IRON GLYCEROPHOSPHATE, N. F.
Powder.

LITHIUM BROMIDE, N. F.
Powder.

LITHIUM SALICYLATE, N. F.
Powder.

MAGNESIUM GLYCEROPHOSPHATE
Powder.

MAGNESIUM GUAIACOL SULFONATE
Powder.

MAGNESIUM SALICYLATE
Powder.

MANGANESE GLYCEROPHOSPHATE, N. F.
Powder.

METHYL PARASEPT
(Methyl Parahydroxybenzoate).
Powder.

METHYL SALICYLATE, U. S. P.
(Oil Wintergreen Synthetic).

PARAFORMALDEHYDE, U. S. P. X.
Powder.
Flo Granules and Coarse Granules.

PENTAERYTHRITOL

POTASSIUM BROMIDE, U. S. P.
Granular, Crystals and Powder.

POTASSIUM GLYCEROPHOSPHATE
75% Solution (Hydrated Salt).

POTASSIUM GUAIACOL SULFONATE, N. F.
Crystals.

PROPYL PARASEPT
(Propyl Parahydroxybenzoate).
Powder.

SACCHARIN, U. S. P.
Soluble Powder and Granular.
Insoluble Powder.

SALOL, U. S. P.
(Phenyl Salicylate).
Granular.
Powder.

SILVER PROTEIN MILD U. S. P.
(Silver Nucleinate).

SILVER PROTEIN STRONG U. S. P.
(Silver Proteinate).

SODIUM BENZOATE, U. S. P.
Powder, Granular and Flakes.

SODIUM BROMIDE, U. S. P.
Granular.
Powder.

SODIUM GLYCEROPHOSPHATE
Crystals, N. F.
Powder, N. F.
Solution 50% Anhydrous.
Solution 35% Anhydrous.

SODIUM SALICYLATE, U. S. P.
Powder, Large Crystals and Small Flo Crystals.

STRONTIUM BROMIDE, N. F.
Crystals and Granular.

STRONTIUM SALICYLATE, N. F.
Powder.

As a first step to becoming acquainted with the advantages of specifying "HEYDEN", write for Complete Product List.

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Chicago Branch
180 No. Wacker Drive

NEW YORK — 50 UNION SQUARE

Factories
Garfield, N. J. Fords, N. J.

CONCENTRONE

A NEW PRINCIPLE in Perfume fixation, completely eliminating the problems of lasting quality in perfume concentrates

A free sample and information upon request

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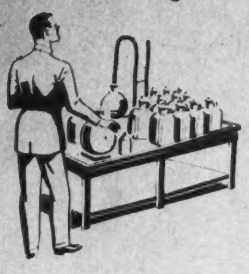
ST. PAUL: 253 E. 4TH STREET
HAVANA, CUBA: SAN LAZARO #671
CANADA: 119 ADELAIDE ST., W. TORONTO
295 YOUVILLE SQ., MONTREAL

THIS ORDER'S TOO BIG TO FILL FROM STOCK, BOB. CAN WE POSSIBLY GET EXTRA SUPPLIES?
WELL, THERE'S ONE THING WE DON'T HAVE TO WORRY ABOUT, JIM, AND THAT'S CONTAINERS.

"Our Requirement Contract with American Can protects us at times like this. No matter how much our needs grow, we're always "covered." But I'm not so sure about the other things, I'll have to check and let you know . . ."

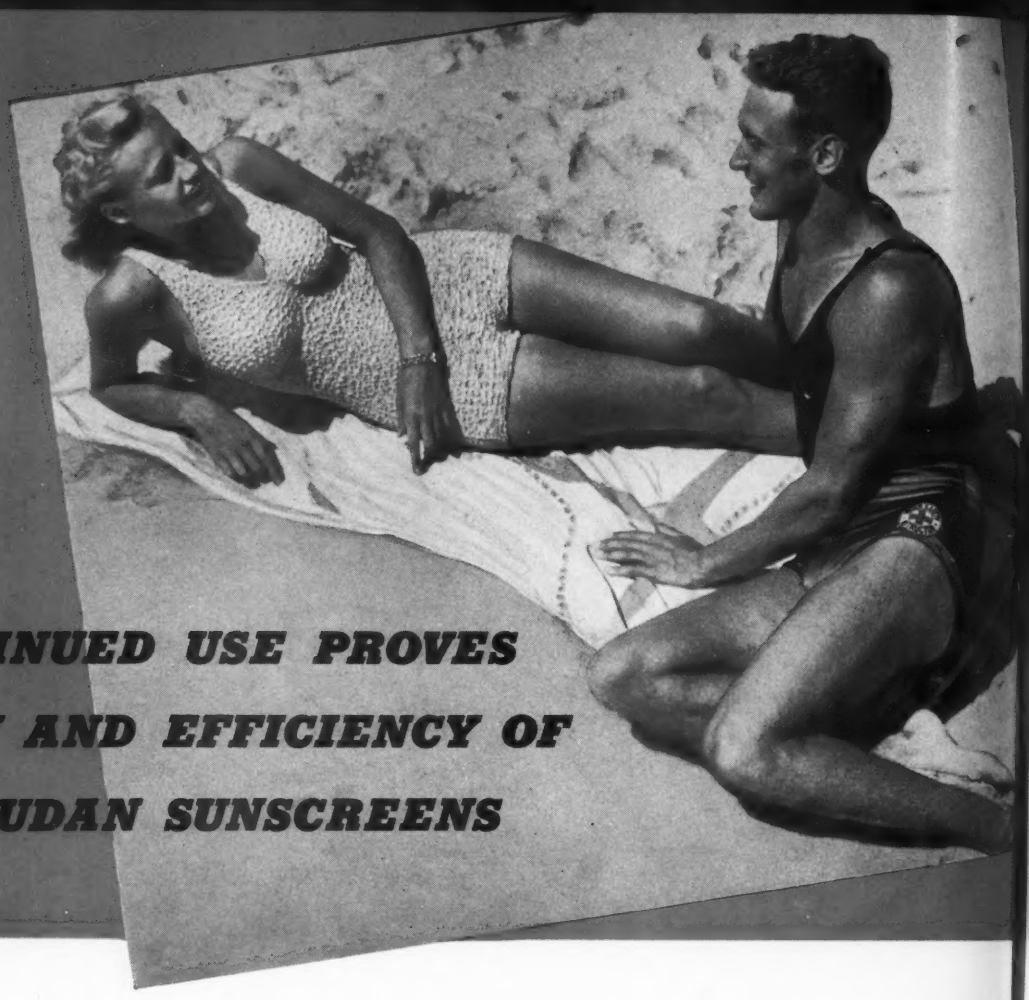
CANCO AMERICAN CAN COMPANY, 230 PARK AVENUE, NEW YORK, N. Y.

Inspiration for a BRIDAL BOUQUET



In creating lines of perfumes and cosmetics with a new and fresh appeal the selection of odors is vitally important. For when products are new it is often the case that the odor is the *only* tangible quality upon which the customer can form a judgment. Quality effects in odors can be achieved only with carefully selected materials... and by the application of thoroughly sound perfuming principles. Start with Givaudan materials as your basis for quality... and let Givaudan's long and successful experience supplement your knowledge of sound perfuming practice. Our staff, working with the most modern laboratory facilities and a deep understanding of odor characteristics, gained by many years of experience both here and abroad, will be of valuable assistance to you.

GIVAUDAN-DELAWANNA, INC., 80 FIFTH AVENUE, NEW YORK, N. Y.



CONTINUED USE PROVES SAFETY AND EFFICIENCY OF GIVAUDAN SUNSCREENS

Sunscreens No. 2 and 52 are Time-Tested and Time-Proven on Various Types of People Under Blazing Suns in Many Different Climates.

ACCEPTABLE performance in actual use over a long period of time is the best criterion of value in suntan preparations. Many of the most successful on the market today have depended for several years on Givaudan sunscreens for their effectiveness. Continued use has established that products using these sunscreens have remarkable sun stopping power under blazing suns in various climates and weather conditions.

SUNSCREENS No. 2 and 52 are safe and effective and at the same time permit tanning—the result most desired by users of suntan products.

SUNSCREEN No. 2 is ideally suited for use in oily lotions, emulsified lotions and creams.

SUNSCREEN No. 52 is recommended for products of the non-greasy, alcoholic type.

START RIGHT NOW—before the big summer demand begins—to give your suntans the added safety and selling power of Givaudan sunscreens. Samples will be sent to you promptly on request.

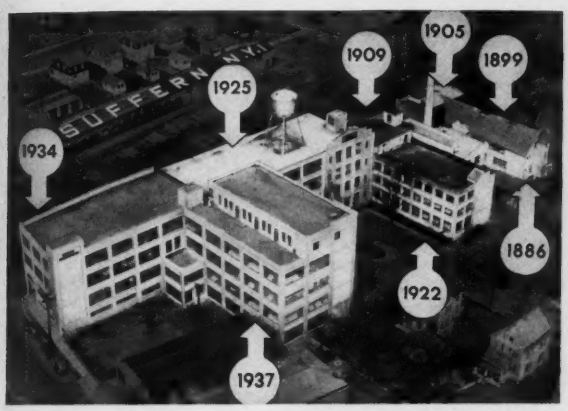
GIVAUDAN-DELAWANNA, INC.

80 FIFTH AVENUE • NEW YORK, N. Y.

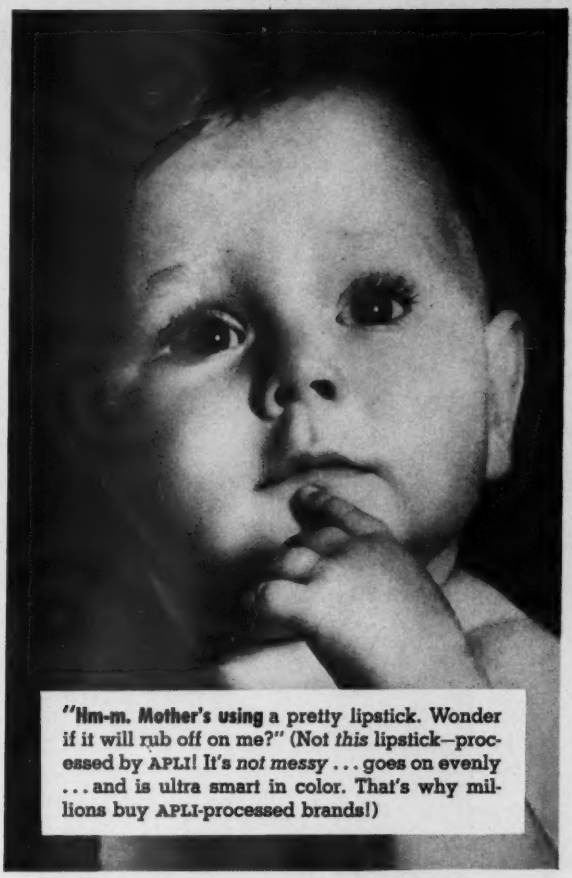
Branches: Philadelphia Los Angeles Cincinnati Detroit Dallas Baltimore Chicago San Francisco Seattle Montreal Havana

APLI-PROCESSED LIPSTICKS

For Satisfied Users and Soaring Sales!



Will you pardon us a moment while we point with pride—before we talk about lipsticks? This photograph shows how the Allied plant has been enlarged *eight times*—to meet the demand among brand-sellers for products backed by Allied's 53 years of experience!



"Hm-m. Mother's using a pretty lipstick. Wonder if it will rub off on me?" (Not *this* lipstick—processed by APLI! It's *not messy* . . . goes on evenly . . . and is ultra smart in color. That's why millions buy APLI-processed brands!)

APLI-processed lipsticks represent the peak of quality—due to perfected formulae, and the finest ingredients obtainable. And thanks to modern, efficient production . . . the latest type of equipment, skilled assemblers, and rigid inspections to insure flawless products!

To be sure of more sales and more repeats, take a tip from leading cosmetic houses. Most of them have changed to Allied—and it will pay you to do the same. Ask us for the proof . . . there will be no obligation, of course. Just phone, wire or write to Allied—TODAY!

LIPSTICKS APLI • ROUGE SUPREME • FACE POWDER APLI • MASCARA APLI • EYE SHADOW APLI

OTHER ALLIED SPECIALTIES: TALCUM POWDERS • DUSTING POWDERS • FACE POWDERS • PERFUMES TOILET WATERS • SACHETS • MANICURE PREPARATIONS • CREAMS • LOTIONS • DEODORANTS DENTIFRICES • BATH SALTS • HAIR AND SCALP PREPARATIONS • SHAVING PREPARATIONS • SKIN TONICS

ALLIED PRODUCTS, Inc. • 30 ROCKEFELLER PLAZA, N. Y. C.

MAKERS OF THE WORLD'S FINEST COSMETICS AND TOILETRIES • PRIVATE BRANDS EXCLUSIVELY

PLANT AND LABORATORIES: SUFFERN, NEW YORK

FASHION IS COLOR

Beauty and Fashion begin at the finger tips---because NAIL ENAMEL is the most fashion-wise of all cosmetics, most responsive in its colors to the trend of Fashion. That's why NAIL ENAMEL is so emphatically the key to makeup success.

DURLIN NAIL ENAMEL is always on time with Fashion; so are DURLIN customers! And with an enamel that meets with the critical approval of the most particular women, is it any wonder that DURLIN customers are showing such substantial sales increases.

LET'S TALK IT OVER BY PHONE, LETTER OR INTERVIEW

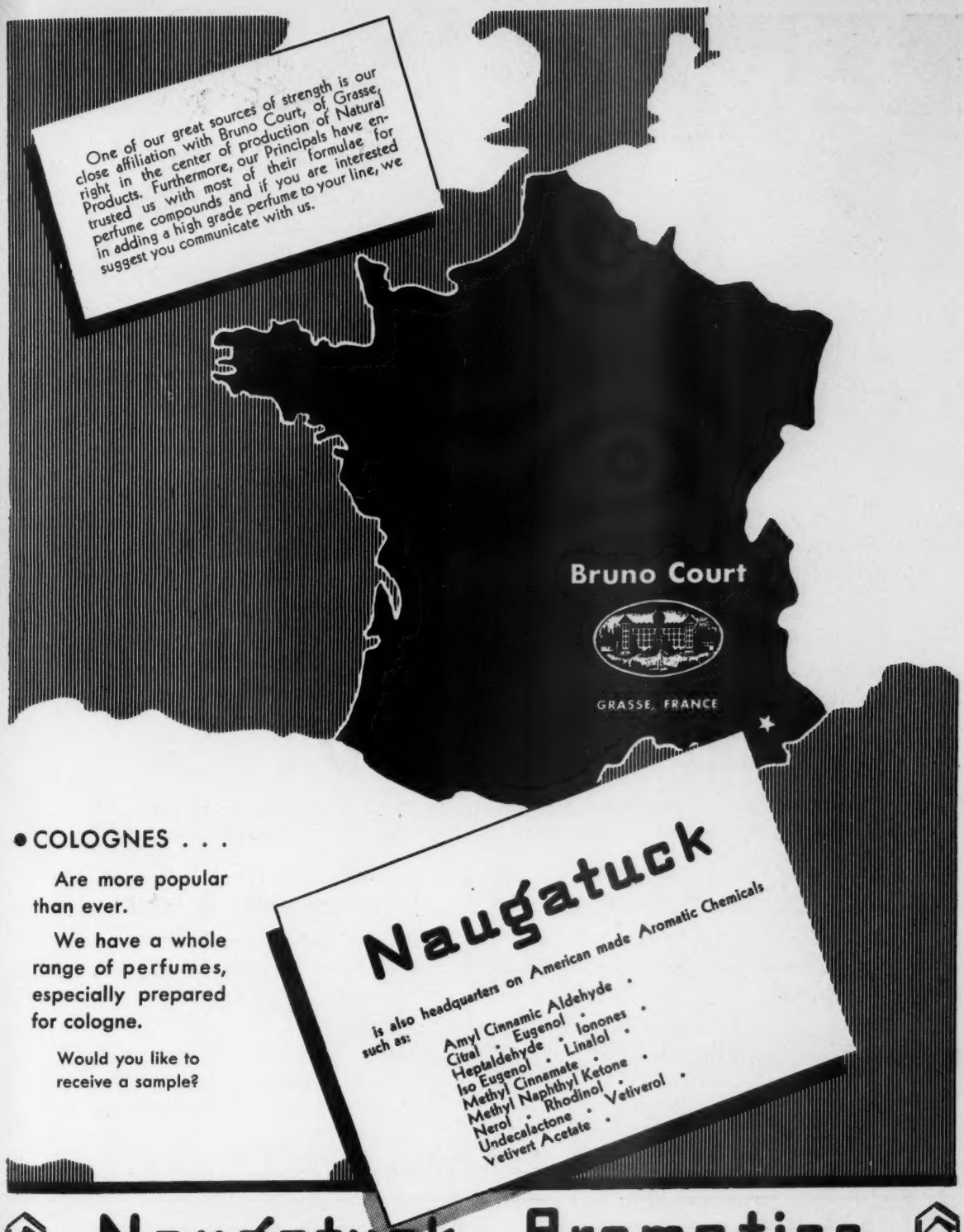
..and Durlin nail enamel is fashion

THE DURLIN CORPORATION

Producers of The Most Talked About Nail Enamel in The World

11 WEST 42nd STREET NEW YORK, N. Y., U. S. A.

DURLIN GIVES YOU SERVICE


One of our great sources of strength is our close affiliation with Bruno Court, of Grasse, right in the center of production of Natural Products. Furthermore, our Principals have entrusted us with most of their formulae for perfume compounds and if you are interested in adding a high grade perfume to your line, we suggest you communicate with us.
Bruno Court
GRASSE, FRANCE
• COLOGNES . . .
Are more popular than ever.
We have a whole range of perfumes, especially prepared for cologne.
Would you like to receive a sample?
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is also headquarters on American made Aromatic Chemicals such as:
Amyl Cinnamic Aldehyde • Citral • Eugenol • Ionones • Heptaldehyde • Linalol • Iso Eugenol • Methyl Cinnamate • Methyl Naphthyl Ketone • Nerol • Rhodinol • Undecalactone • Vetiverol • Vetivert Acetate •

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A corner of our analytical laboratory. All our purchases must pass rigid tests prior to acceptance.

A section of the perfume laboratory, where Dreyer perfumes are created and accurately compounded.

The main office which coordinates the activities of the various departments and branch offices into an effective service organization.

PERFUME SPECIALTIES

WE SOLICIT YOUR REQUESTS FOR ANY TYPE ODOR. WE HAVE MANY IN STOCK. SHOULD YOU DESIRE AN EXCLUSIVE CREATION WE WILL DEVELOP IT FOR YOU.

ALL PURPOSE PERFUMES

One perfume with all the requirements for excellent use in Creams, Powders, Bath Salts, Soaps, Brilliantines, Colognes, etc.

LILAC	ORANGE BLOSSOM
ROSE	HONEY SUCKLE
VIOLET	HYACINTH
JASMINE	ORIENTAL
GARDENIA	BOUQUET

Price per pound $3.00 and up. Write today.

DREYER TONERS $15.00 lb.

Excellent perfume bases or toners. A small per cent of any of these bases will round out your perfume. Trial ounce quantities $1.00 per ounce.

ALDETONE	ORRISTONE
AMBERTONE	ORANGERTONE
DIANTHATONE	ROSALTONE
FLORALTONE	TUBERTONE
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Create your own perfumes using TONERS as your base.

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Also 35 representatives covering principal cities of the United States and Europe

Is She Pointing to Your Product or a Competitor's?

•

STOP THE EYE WITH COLOR

You know the value of color. Use it to boost your sales. Pack in distinctive Maryland Blue. Retailers will want to display your product because it is colorful, attractive. Consumers will "spot" it more easily, be reminded to buy. And in the home, color advertises your product, helps to insure repeat sales.

START THE SALE WITH COLOR

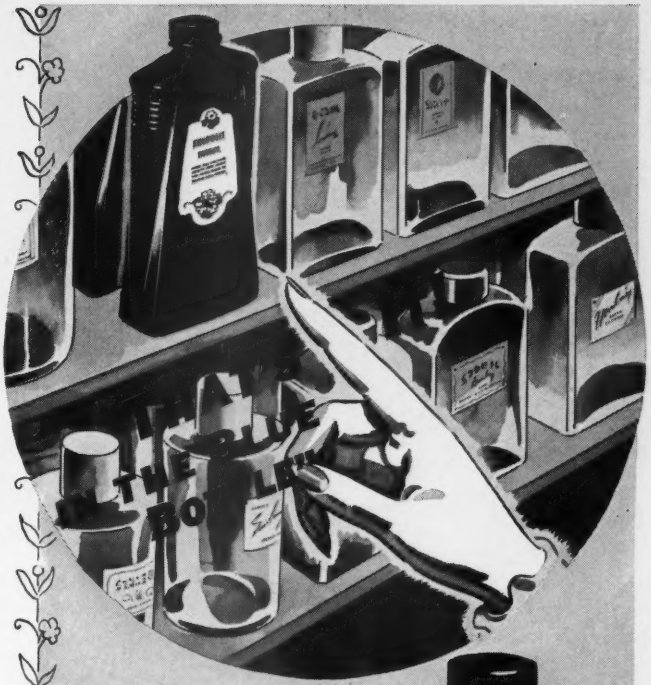
You know that blue is a synonym for quality. True blue, blue book, blue blooded immediately bring to mind character, integrity, high rank, prestige. Give your product a quality appearance—pack in Blue. Maryland Blue bottles and jars are available in a wide variety of attractive stock designs. Tell us the nature of your product and sizes in which it is packed and we will submit appropriate samples.

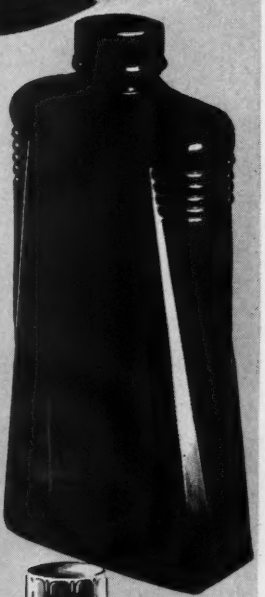
PACK TO ATTRACT IN

Maryland Blue
BOTTLES AND JARS

MARYLAND GLASS CORPORATION, BALTIMORE, MD. . . New York: 270 Broadway. . . Chicago: Berman Bros., 1501 S. Lafin St. . . St. Louis: Carl Floto, 1908 Clark Ave. . . Memphis: S. Walter Scott: 435 S. Front St. . . Kansas City, Mo.: Aller Todd, 1224 Union Ave. . San Francisco: Owens-Illinois Pacific Glass Company.

Also Available in Clear Glass





CHESAPEAKE OVAL
Available in 4, 6, 8, 12, 16 and 32 oz. sizes.

CABINET SQUARE
Available in ½, 1, 2, 2½, 3, 4, 6, 8, 16 and 32 oz. sizes.

FRENCH SQUARE
Available in ¼, ½, 1, 2, 4, 6, 8, 10 and 16 oz. sizes.

CLEAN AIR

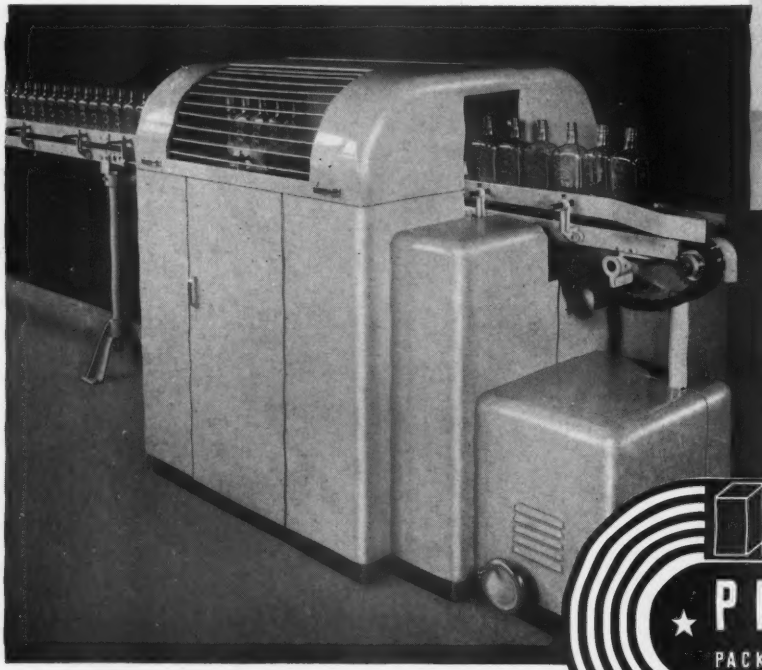
GLASS packers will agree that bottle cleaning effectiveness depends largely on the purity of the cleaning agent. A user* of Pneumatic's Inverted-Bottle Air Cleaner voluntarily submits the following enlightening data from an air analysis in his plant.

Air at the compressor intake showed a plate count of 109 micro-organisms (Petri Dish). After passing through Pneumatic's triple filter units and at point of discharge into the bottles, the plate count was 6—a 95% purification! And our customer states that the average bacteria removal is much higher.

Thus with practically sterile, dry air at 60 pounds pressure and with bottles upside down and stationary at the moment of blasting, Pneumatic guarantees a thorough cleaning of new glass containers. There is no opportunity here for rinsing water to introduce mineral salts, oil particles or other foreign matter to replace one form of dirt with another. Glass containers are kept dry and that eliminates wet bottle trouble in the labeling operation.

Pneumatic builds two machines for Dry Air Bottle Cleaning; both are pictured here. Details on either unit will be sent to you promptly on request.

*Name furnished on request.

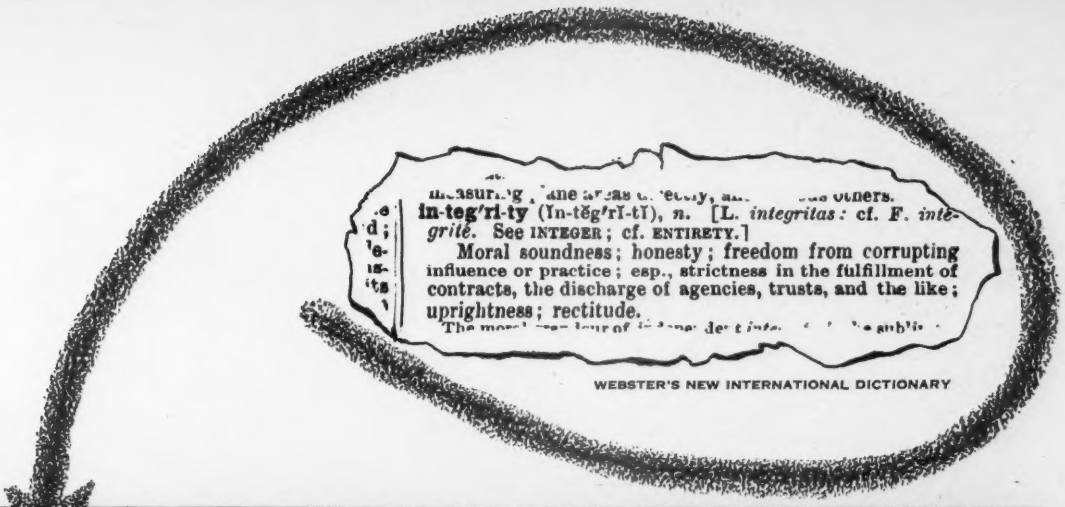


Semi-automatic Air Cleaner for 20 per minute to 50 per minute cleaning of all bottle sizes.

Fully-automatic Inverted Bottle Cleaner for speeds ranging to 120 per minute and up to quart sizes.

★ PNEUMATIC
PACKAGING & BOTTLING EQUIPMENT

PNEUMATIC SCALE CORPORATION, LTD.
70 Newport Ave., Quincy, Mass. (Norfolk Downs Station)
Branch Offices:
NEW YORK - CHICAGO - SAN FRANCISCO - LOS ANGELES


in-teg'ri-ty (In-tĕg'rI-tI), n. [L. integritas: cf. F. intégrité. See INTEGER; cf. ENTIRETY.]
Moral soundness; honesty; freedom from corrupting influence or practice; esp., strictness in the fulfillment of contracts, the discharge of agencies, trusts, and the like; uprightness; rectitude.
WEBSTER'S NEW INTERNATIONAL DICTIONARY

"INTEGRITY... the foundation upon which are built our manufacturing and trade policies."

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HELFRICH LABORATORIES OF CANADA, LTD., 690 KING ST. WEST, TORONTO, ONT.
BALDWIN & BALDWIN, 819 SANTEE STREET, LOS ANGELES, CALIF.
CHARLES H. CURRY, 420 MARKET STREET, SAN FRANCISCO, CALIF.
CABLE ADDRESS: HELFLABS, NEW YORK . . . . . CHICAGO . . . . . TORONTO

Significant!

FACE POWDER BASE Z

USED IN *Better* FACE POWDERS

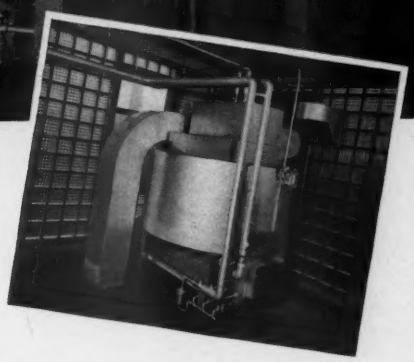
It is significant that Face Powder Base Z is used by prominent manufacturers of leading Face Powders for more covering power . . . more adherence . . . quality of slip . . . invisibility and FOR MORE SALES.

AROMATICS DIVISION
GENERAL DRUG COMPANY

170 Varick St., New York
9 S. Clinton St., Chicago, Ill.
Transportation Bldg., Los Angeles, Cal.
907 Elliott St. West, Windsor, Ontario

Dehumidifying equipment charged with Activated Alumina used in a modern pharmaceutical plant.

HOW ACTIVATED ALUMINA HELPS GUARD FINE PHARMACEUTICALS



In many pharmaceutical plants they're using Activated Alumina to get the "made" weather they need. It's so sure, so economical, as a means of providing the right humidity for protecting deliquescent and effervescent materials, for speeding the drying of materials sensitive to temperature, and for preventing clogging of powder-handling machinery.

There are outstanding advantages to the dehumidifying equipment in which Activated Alumina is the drying agent. These dehumidifiers provide any desired relative humidity, in actual cases going as low as 4% at normal room temperatures. Operating continuously, fully automatic equipment has been in successful use for six years. With proper usage the life of the Activated Alumina is virtually unlimited.

These advantages are inherent in the use of Activated Alumina. We shall be glad to send you information* about the material and the performance it gives in providing simplified and economical humidity control. ALUMINUM ORE COMPANY. (*Sales Agent:* ALUMINUM COMPANY OF AMERICA, 1964 Gulf Building, Pittsburgh, Pa.)

**If you wish, we shall be glad to send at the same time descriptions of Gelatinous Alumina, the new material so useful in preparing salts of weak organic acids, such as Aluminum Oleate and Stearate, and information about the "C-730" hydrates, remarkably fine, talc-like powders, suitable as bases or fillers for cosmetics.*

ACTIVATED ALUMINA

AN "ALORCO" ALORCO PRODUCT

Invitation

TO THE

Gay Nineties

First Prize Winner in 1939

Florasynth Laboratories exhibit "Hawaiian Gardens" at the 1939 show won the Association award for its excellence.

Following in theme the fomed "Gay Nineties" period, the California Cosmetic Association Exhibition of 1940 opens Tuesday, March 26th, at the Wilshire Bowl, Los Angeles.

You will enjoy Florasynth's Exhibit and its interpretation of the show's motif. Your attention is cordially invited.

Florasynth
LABORATORIES, INC.
1533 Olmstead Avenue, New York

CHICAGO DALLAS DENVER LOS ANGELES SAN FRANCISCO

TEAMWORK

IT takes more than muscle and brawn to make a winning crew. Without teamwork and perfect coordination, the result of individual effort is lost.

At CCS there is a capable management and a highly trained personnel, all pulling together to produce the best possible closures and to give you deliveries and service that exactly meet your requirements. It is this teamwork and harmony that have made CCS a great institution. It is this teamwork and harmony that make CROWN Closures outstanding in their sealing efficiency and dependability.

CROWN CORK AND SEAL CO. • BALTIMORE, MD.

World's Largest Makers of Closures for Glass Containers

IN THE LONG RUN . . .

CROWN CLOSURES

. . . COST LESS

. . . new sparkle in your Jasmin creations—*with Albert Verley's*

Jasmogene

. . . with substantial savings in cost. That is the experience of the dozens of new users of this fine Verley product, tested over the years. Prompted by our recent announcement, these perfumers have joined the many others, the world over, who have discovered the excellent utility of Jasmogene.

They find that, with or without absolute Jasmin, Jasmogene and other Verley products (such as Aldehyde Jasminique and Alcool Jasminique) enable you to maintain the distinction and salability of your Jasmin products — with assurance of a dependable source of supply at practical prices.

You too can profit by getting acquainted with Jasmogene.

Write for working samples and quotations.

Albert Verley *aromatics*

ALBERT VERLEY, INC., D. A. Bennett, *President* • 1621 Carroll Ave., CHICAGO, ILL.
114 EAST 25th STREET, NEW YORK • MEFFORD CHEMICAL CO., LOS ANGELES

New edition of "Albert Verley Aromatics"

—the perfumer's favorite handbook of aromatic chemicals

— ready shortly. New suggestions for basic floral odors . . . many new chemicals and specialties . . . Complete list of natural products by V. Mane Fils . . . 12 new color plates . . . Everything you expect of a new Albert Verley Price book, and more. *Mail the coupon for your free copy.*

ALBERT VERLEY, INC.
1621-D Carroll Ave., Chicago, Ill.

Please send me a copy of your new price book, "Albert Verley Aromatics."

Name.....

Position.....

Company.....

Address.....

lore than you pay for . . .

IN PACKAGES BY *Ritchie!*

WHEN YOU BUY a package, first of all you pay for a container that will bring your product to the consumer as fresh and attractive as when it left your hands.

Every Package by Ritchie is that.

But it's the things you *don't* pay for that are sending Ritchie sales soaring to such new heights that a $250,000 plant addition is being rushed to completion right now.

For one thing, you don't pay for the merchandising experience that's behind every package Ritchie makes. Will the dealer like and display it? Will it stop shoppers? In short, will it *sell*?

Not until these questions are answered with a good solid "yes" does Ritchie want to go into production on your packages!

And when production begins, you get still other *plus* values. Manufacturing economies and refinements brought about by methods and machines developed during 74 years of making good packages.

So remember — whether you need a specialty package that's a work of art in its own right, or a sturdy little sales-helper for a volume item, Ritchie has the facilities, the experience and the ideas required to give you *more* than you pay for!

Why not look into it now? There are three kinds of Packages by Ritchie — Set-up Paper Boxes, Fibre Cans and Transparent Packages. Samples, design suggestions and information on prices are all waiting here for your letter.

W. C. *Ritchie* AND COMPANY

8847 BALTIMORE AVENUE • CHICAGO

SET-UP PAPER BOXES
FIBRE CANS
TRANSPARENT PACKAGES

NEW YORK DETROIT LOS ANGELES ST. LOUIS ST. PAUL DENVER MIAMI

STURGES' STANDARD PRECIPITATED CHALK

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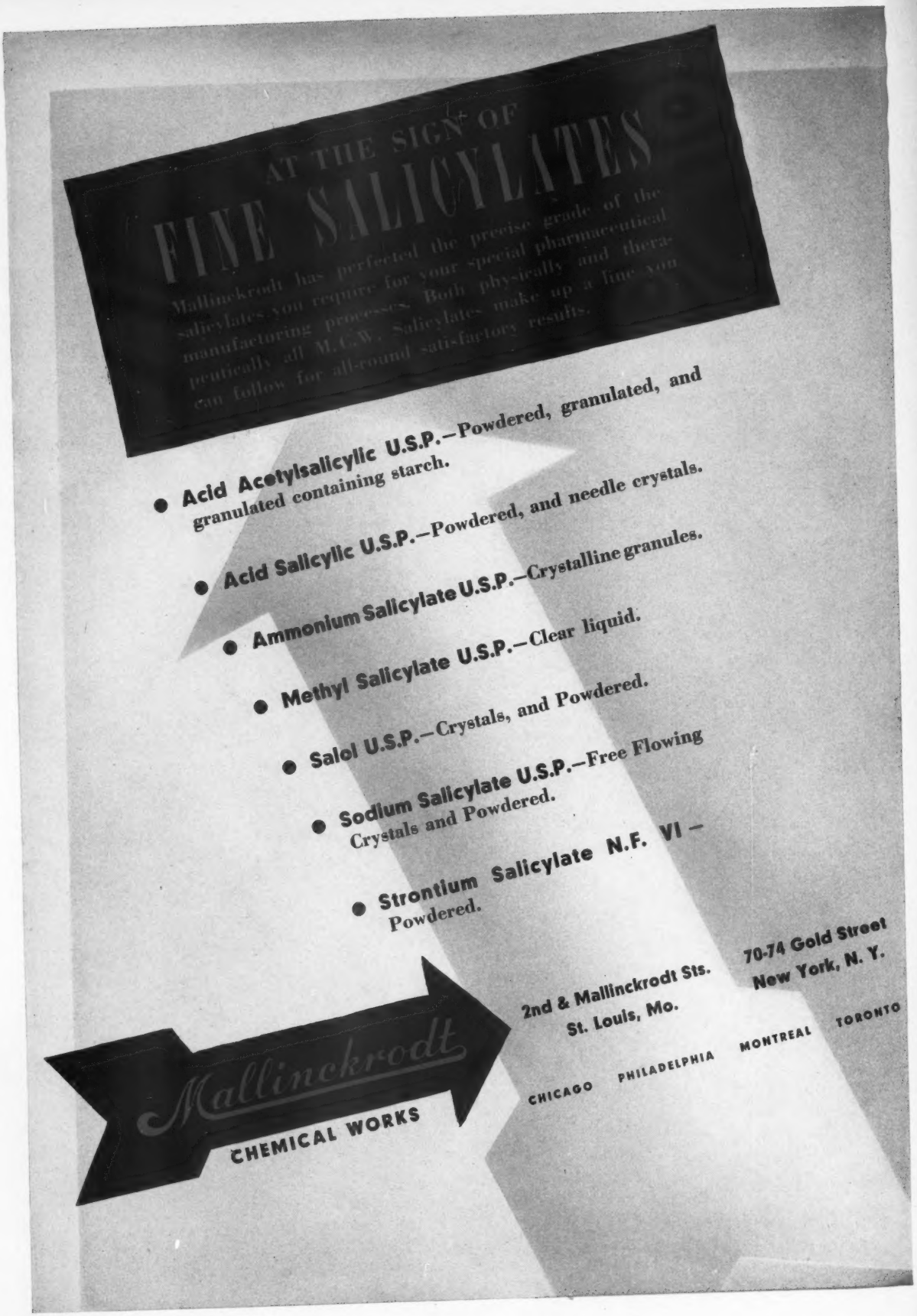
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GROUP MEDICINE

DRUG manufacturers must watch carefully the trends in the practice of medicine. If groups medicine becomes a fact, then people are going to the doctor much more often for the very reason that it is not going to cost them any more no matter how often they go. If they go to the doctor more often they are going to use more of the ethical products of this industry than they are of the advertised proprietaries. Therefore, under group medicine we will doubtless see a still further gain by the manufacturers of products promoted ethically.

THE final decision in the suit of the government against the American Medical Association and its officials will tell whether group medicine is to surge ahead at once or whether it is to be delayed until some later time. From the decision of the Circuit Court of Appeals, the new make-up of the U. S. Supreme Court, and the temper of our courts generally today, we are of the opinion that group medicine will be given its chance to prove itself. If this is so, then the drug manufacturers should immediately take steps to bring themselves in line with the indicated trend.

WE HAVE no fear that group medicine or any other condition which causes people to go to the doctor more often is going to lessen the consumption of drug products. We are of the opposite opinion that such a condition will increase the consumption of drug products for the reason that drug products are sound in their position, and also because more attention to health makes for greater use of drugs. The new order of things in this industry brought about by the Food, Drug and Cosmetic Act will be extended much along the same lines if group medicine becomes general. Therefore it is well to watch this trend closely.

F.D.A. "NEW DRUG" POLICIES

By H. C. HALLAM

MANUFACTURERS putting out new drugs, or who are in doubt whether their product is a new drug within the meaning of the new Food and Drug Law, should by all means consult with the Federal Food and Drug regulatory officials in the opinion of Walter G. Campbell, Chief of the Food and Drug Administration, United States Department of Agriculture. Mr. Campbell thinks the manufacturer has nothing to lose by following such a course. He has no idea that the government will take any unfair advantage of the manufacturer or his product. On the contrary, he indicates that there is every disposition in official circles to be helpful. The Food and Drug chief declares that his administration will pursue no devious course in dealing with new drugs, the labels of which may have to be changed. At the same time, he can promise no immunity in advance to a manufacturer whose product, formula, label, or package is submitted to the Administration.

Mr. Campbell in effect confirms the advice given by THE DRUG AND COSMETIC INDUSTRY that application under the new drug provision of the law should be made when the formula is changed, even though the quantity of a potent ingredient is reduced, which would intend to make the product safer. He pointed out that the result of such a change would be a new drug. At the same time, however, he stated that if the original product had been accepted or approved by the Administration where the quantity of a potent ingredient is larger, its acceptance when the quantity of that ingredient was reduced would be practically assured, provided the same directions for use of the drug remained.

"If we take the position that the reduction in the amount of a potent ingredient does not require a new application, we are making it possible for the product to be unsafe," said Mr. Campbell. "If we were to say that a reduction of 50 per cent. in the quantity of a potent ingredient would not be a reason for considering the preparation as a new drug, we would be ignoring all conditions that might operate to make it unsafe. We would be disregarding directions. A combination of 50 per cent. less of a potent drug with other ingredients would make a different product. While a smaller dosage without modification of the directions, ordinarily would not create a question of unsafety, yet the product might be unsafe, especially if it contained some such drug as bichloride of mercury, which has a cumulative effect. Quantity is not the only factor involved," continued Mr. Campbell. "The definition of a new drug in the law depends fundamentally upon directions for use. It is perfectly possible to reduce the proportions of potent ingredients and at the same time modify directions in such a way as to make the second product more unsafe than the first."

Asked whether the Food and Drug Administration holds that changes of package, label, and formula constitute a new drug, the Food and Drug chief replied in the affirmative, provided certain things are involved. He said that an innocuous product can be made unsafe by the character of the directions for use. "The whole thing depends upon labeling," he declared. He took the position that the manufacturer is not *required* to consult the department about new drug products. "He must make his own initial decision," said Mr. Campbell. "We have said, however, that as a matter of insurance it would be a good thing for a manufacturer to file application if he is doubtful."

The mere change of a package itself, other than that which might have some relationship to the use of the drug, would not ordinarily operate to make the product a new drug, Mr. Campbell continued. He added that a "change of formula could mean anything. It may be substitution of dangerous for innocuous ingredients. Change of label would necessarily make it a new drug." Mr. Campbell continued. "It is as easy to make a new drug of an innocuous product by changing the label as it is by changing the formula. The method of use is important. The definition in the law goes to the ingredients, as well as the method of use."

The Food and Drug chief differs radically with those manufacturers who take the view that Congress had in

In an interview, Enforcement Chief Campbell gives very full views on the problem of whether or not to file an application for permission to market a product under the new drug section of the Food, Drug, and Cosmetic Act.

WALTER G. CAMPBELL

mind as new drugs such preparations as sulfapyridine and diethylstilboestrol and other novel preparations. "The public would not be protected if that were the case," said Mr. Campbell. "The new drug section of the law was the result of the sulfanilamide tragedy several years ago. Congress was undertaking to correct that situation and prevent similar situations in the future. The definition applies to old preparations or combinations of old ingredients known since time immemorial. You would be forced to conclude that the very practice that gave birth to this section could continue if the intent of Congress was interpreted as you suggest."

The Food and Drug chief cited provisions of the law and the department's regulations dealing with new drugs. He denied that the intent of Congress is being distorted in connection with the submission of products for approval as new drugs, of which labels or formulas are being changed. On the other hand, he suggested that manufacturers "can underwrite the legality of commercial operations by submitting applications. If what they have done by changing a label or formula does make a new drug, and if shipments are continued without departmental approval, violation of Paragraph (A), of Section 505 of the new law would occur."

Mr. Campbell denied that there is any disposition of the administration to want every drug product that has been on the market, perhaps for many years and in which there may be some slight change, submitted for approval as a new drug. On this point, he said: "If we were to say that every little change made it a new drug that would be distortion of the meaning of the law. It would be going to an extent not authorized altogether under the Act. But there is a striking difference between that extreme and the other extreme that the new drug definition applies only to completely novel products. We are taking the middle course. It is working out very effectively. The greatest difficulty has been incidental to the completion of applications. Many applicants have overlooked submitting to the department all the information required by Section 505 (B), but that failure is growing less and less. The tendency of its disappearance makes possible more expeditious handling of application."

Mr. Campbell was asked: "Could or would a label be criticized, forced to be changed, the product bearing it be required submitted for approval as a new drug and then application be refused?" His reply was an emphatic "NO." Continuing, he said: "We are criticizing labels for foods, drugs, and cosmetics in great quantities every day. We have indicated our willingness to lend ourselves to the promotion of label revision, in order to comply with the law, in the belief that this method would operate as one of the most effective means in securing universal observance of the law. We cannot do that unless we know the formula. Where a manufacturer does let us know that and we have stated that we have no criticism to offer, then presumably that product would comply with all provisions of the Act."

"If the product is not in compliance with Section 502 (J), relating to dangerous drugs, we would be derelict in our duty if we approved it. If it were a safe drug under circumstances of use as labeled there would be no basis for treating the product as a new drug, and turning it down. If the label contained no false or misleading statements, it would not be condemned on that score."

Mr. Campbell then explained the procedure and factors entering into consideration of all drugs coming to the attention of the Food and Drug Administration. First, he said, they consider the dosage and frequency

of administration to determine whether the product is a dangerous drug. Next is considered the question whether adequate warnings required by Section 502 (L) appear on the label. The third point to be determined is whether certain ingredients which the law requires to be specifically declared are contained in the product and are so declared. Fourthly, comes determination of habit-forming ingredients, if any, and their declaration. Finally, comes the question whether there is any false or misleading statement. If the product or its label passes all of these tests or meets all of these requirements, Mr. Campbell said, he could not see how it could be possibly held dangerous and therefore be rejected.

Naturally Food and Drug Administration officials have been following with interest recent developments regarding Bromo-Seltzer and other headache remedies. As they see it, however, there is no certainty that if the Bromo-Seltzer case in New York had been fought by the manufacturer, that the question of what constitutes a safe or unsafe dose of acetanilid would have been decided. Officials point out that this case involved the question whether the amount of Bromo-Seltzer consumed under directions on the label is dangerous. The question before the court was not determination of what quantity of acetanilid can be used safely and how frequently. The question was "Is this product safe?" If the case had been tried out on its merits it is understood that government testimony would have given opportunity to have acquired expression of opinions of experts on what would be a safe quantity of acetanilid for consumption. Officials say that approximately 2½ grains of acetanilid and approximately 5 grains of sodium bromide seem to be the standard ingredients in a number of headache remedies now being made, including Bromo-seltzer and competitors. At the same time, however, it is stated that the manufacturers understand that that figure has not been finally approved by the department.

"I have made it plain," said Mr. Campbell, "that we don't believe it can be said without contradiction that the administration of even 2½ grains of acetanilid with the frequency called for under directions is not dangerous to health. Evidence we developed in the course of prolonged investigation was directed toward showing that something like 3½ to 4 grains was dangerous. In the revision of these headache preparation labels manufacturers have been told and fully understand that if our continued investigation acquired facts enabling us to conclude that 2½ grains are dangerous, we will find it necessary to take two bites of the cherry.

"We will always be seeking information about the effects of potent drugs," continued Mr. Campbell, "and with the extension of clinical investigations will know a good deal more in two years than we do now. It is my purpose, if we should find that 2½ grains of acetanilid administered with the frequency called for by the revised labels is in our judgments violative of the law, to announce that fact to these manufacturers before taking action. They have said that they wanted to know what we thought. On their own responsibility manufacturers have made substantial reduction in the quantity of this ingredient. If we believe it is shown that the reduced quantity is unsafe, we will serve notice to that effect and give the manufacturers time and opportunity to change their formulas."

It is stated that headache preparation manufacturers generally have taken the same position as the Emerson Drug Company regarding Bromo-Seltzer. Mere reduction of an ingredient of a drug preparation wholly divorced from directions on the label would not remove it from consideration under the new drug section, Mr. Campbell said. He declared that manufacturers would not be engaging in a costly gamble if they submitted products changed by reducing the quantity of potent drugs, assuming that they do not change directions for use. However, at the same time, he could not promise that official blessing of the Food and Drug Administration on such products. An advance declaration that mere reduction of an ingredient such as phenolphthalien would be approved by the department, it appears, cannot be obtained.

The Food and Drug Administration, Mr. Campbell indicated, does not feel that it is its business to declare in favor of or in opposition to the use of more or less of a particular drug, unless it believes it has sound scientific basis for such a position on the ground of safety to health. Generally speaking, F.D.A. says, a position for or against a certain drug goes more into the field of medicine, rather than the field of law enforcement. The Food and Drug Administration does not regard it as its function or business to say whether too large a quantity of phenolphthalien or some other drug is being used. There are some exceptions to this rule, however. For example, the Administration in recent years has strongly contended that such drugs as cincophen and amidopyrine are dangerous, although it has not taken the position that these drugs should not be administered by physicians.

"We have no call officially to be thinking in terms of the medical profession," said Mr. Campbell. "Our consideration is whether drugs and drug products are being sold in compliance with the law."

It was suggested to the F.D.A. chief that many manufacturers may be willing to change formulas to make them a little "safer", provided such a step, taken in a sincere desire to comply with the law, would not bring their products under fire. He replied that he did not know what was the background or philosophy of such a suggestion. He said he "could give no assurance such a course would not create trouble for the manufacturer." However, he could imagine not more than a few isolated cases of that sort, since he said the Administra-

(Continued on page 323)

A.M.A. AND GROUP MEDICINE

THE American Medical Association and its officials must stand trial under the action brought by the U. S. Government charging them with monopolistic practices unless the U. S. Supreme Court decides otherwise. For the Circuit Court of Appeals has overruled the decision of the U. S. District Court. The lower court had upheld the contention of organized medicine that the practice of medicine, being a profession and not a trade, is not subject to the Clayton Act which outlaws monopolistic practices. The Circuit Court contends that monopoly can be created in a profession of this kind and that therefore the law applies. Therefore the technicality upon which organized medicine tried to duck the charges has been removed and the case is ordered back to the District Court for trial.

An amusing sidelight of this contention is that in the famous Raladam case in which the F.T.C. tried to show that the advertising of Marmola constituted unfair competition against the medical profession, the U. S. Supreme Court decided that there could be no competition between a trade and a profession. But in the present instance only the medical profession itself is involved, and there certainly would be attempts by groups within the profession to control the entire profession. An added indication of how this case might go is that we have a quite different Supreme Court now than we had in 1928, and there exists quite a different philosophy with regard to the medical profession than existed ten or twelve years ago.

The case in point involves the activity of organized medicine in attempting to block a group health movement established for the benefit of government employees in Washington, D. C. Activities to block this movement are said to have taken the form of influencing hospitals so that doctors who were associated with the group movement were not allowed the facilities of the hospitals. Other actions against these doctors are also said to have been taken in an effort to threaten all other doctors who might be inclined to join up with group medicine organizations.

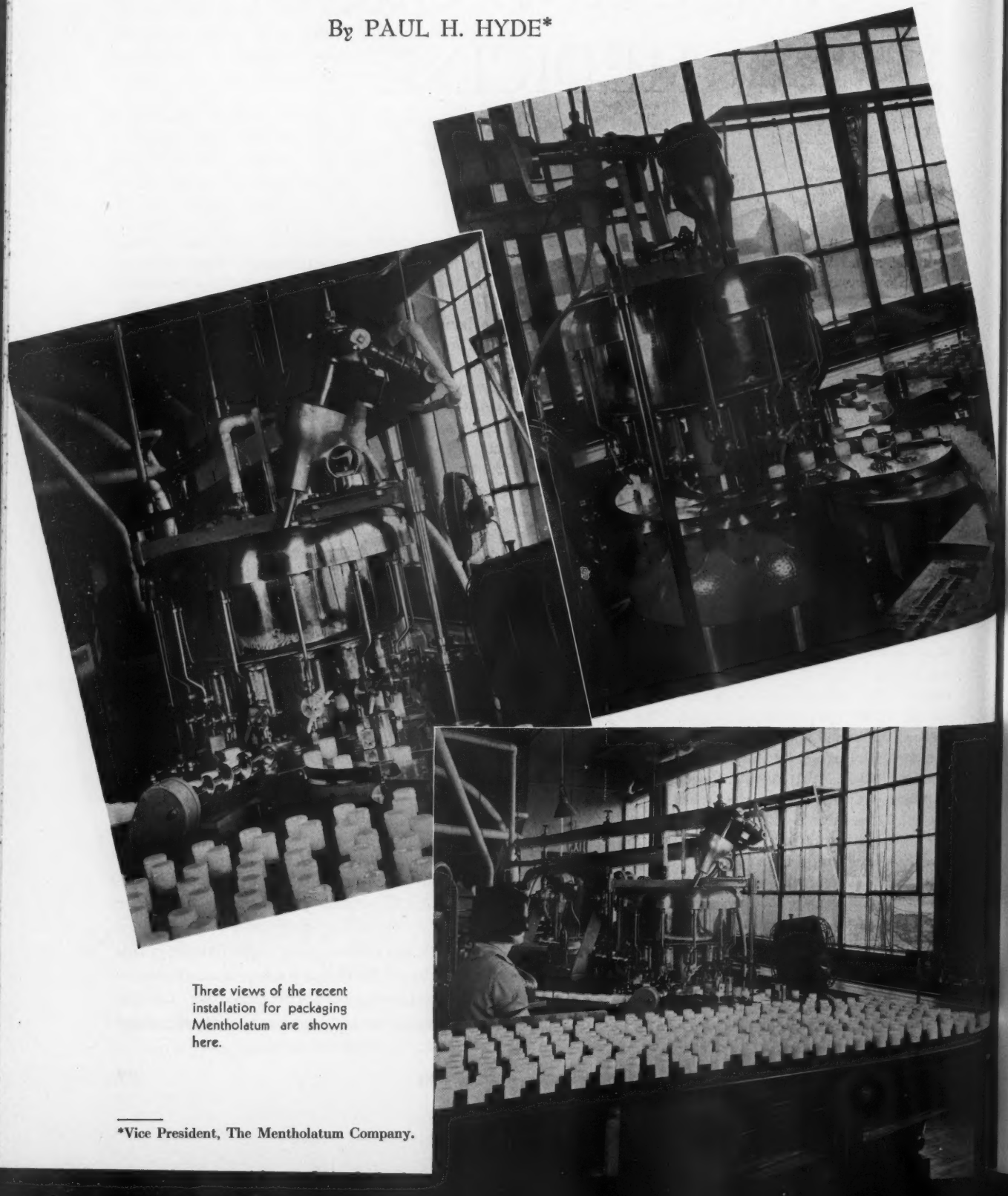
The fight between the A.M.A. and these group medicine movements has been going on for some time in different parts of the country. Now if the government can win its case against the A.M.A. and its officials and prove tham guilty of monopolistic practices under the Clayton Act, then the group medicine movements will have free sailing. All doctors will then be free to join in these movements and the A.M.A. will not dare to place any obstacles in the way of these groups.

If this case is won by the government, the drug manufacturers will have a clear indication of the future trend in the practice of medicine. The individuals and their families will have an opportunity to join these groups for a flat fee of from forty to seventy-five dollars per year. They will then get the service of many doctors specializing in many fields. Diagnostic aids such as x-rays, cardiographs, basal metabolism tests, blood chemistry, blood counts, and all the rest, will also be available without extra charge. In other words the condition of each person will be studied thoroughly, and a proper diagnosis made, and the proper surgical or medical treatment will follow.

Many prominent physicians of the country have long been in favor of this new development in the practice of medicine but they have been blocked by the A.M.A. in extending it. Now the courts of the country are to decide whether or not organized medicine as represented by the A.M.A. can stop the development of this trend. What it will mean to the drug manufacturer if the government wins the case can be decided quite well in advance by the drug manufacturers themselves depending upon the nature in which they conduct their merchandising. It certainly would appear that under such a condition the ethical branch of the drug business would develop still further. Direct sales to these groups might or might not develop depending upon whether or not the medical groups indulged in dispensing. But it is up to the manufacturers themselves to study this phase of the matter.

HOW TO IMPROVE FILLING METHODS

By PAUL H. HYDE*



Three views of the recent installation for packaging Mentholatum are shown here.

*Vice President, The Mentholatum Company.

SINCE we installed new, high speed, automatic jar filling equipment in our Buffalo, N. Y. plant several months ago, manufacturers who have visited the plant have shown marked interest in the improvement in our filling operation. A description of our method will undoubtedly be of value to others who are interested in increasing speed and decreasing the cost of this operation.

We became interested in new filling equipment because of our desire to fill all jars level full. The capacity of glass jars varies and by the old method a very messy condition resulted, necessitating much hand scraping, filling and cleaning.

The fillers were releasing a given quantity into each jar and it was necessary to remedy by hand the over and under-filled jars.

The end of the daily run frequently found a quantity of inadequately filled jars that were rejected by the inspectors. This required the additional expense of hand finishing such jars the following morning. But this extra cost was nothing in comparison to the labor costs and time required in correcting the results of overfilling.

The messy conditions caused by the overflow filling of jars resulted in high labor costs. Three girls were occupied *full time*, during a filling run, in cleaning overflowed jars and adjacent jars contacted by the overflow and in cleaning the moving belts running from the fillers to the capping machine. In spite of this attention, some of the overflow was constantly reaching the capping machine, where it was transferred from jar to jar during the capping operation. In many cases it even reached the labeling machine and caused badly discolored labels.

Manufacturers of the one and three ounce jars we were using, advised us that they could not overcome the variation in jar capacities, because there is no known method of controlling the amount of shrinkage in the glass jars when cooling off after being moulded.

It is readily apparent from the above facts that our filling operation needed revamping in spite of the fact that we knew it was similar to that of other manufacturers in our industry. And while we were at it, we decided to investigate the possibility of speeding up the rate of filling, since this would decrease our expenses without increasing supervision or overhead costs.

We started an investigation of filling equipment and our new equipment described below is the result. I am not overstating the case when I say that it fully solved every problem we had, but in accomplishing this desired result, an entirely new method of controlling flow for the filler was devised.

The new fillers do not fill the same amount of material into every jar. Instead, they fill every *jar to a predetermined level*. Jars that are slightly larger than specified capacity will be filled to the same level as all other jars, so the customer will always get a full package.

Investigation of all filling equipment on the market failed to produce one that could solve the conditions we were up against. It was evident that an entirely new control principle for releasing and shutting off the flow from filling nozzles was needed. The engineering organization of one of the manufacturers said that with our cooperation, they could design and build a machine with a new type of control that would do what we wanted it to, and the machine illustrated is the result. It is the control of flow in this machine that is new, the balance of the design being one this company has used in thousands of fillers.

The control of the flow from the filling machine is the rotary valve type. The reservoir chamber holds only a few ounces, the size depending on the maximum jar size to be filled. A double nozzle arrangement projects from the bottom of the rotary valve. The material flows into the jar through one of these nozzles. The second nozzle is an air vent leading to the reservoir chamber, and the material continues to flow into the jar just so long as air can be sucked in through the air tube. When the material in the jar reaches the level of the air tube, the air is shut off and the flow of material is stopped instantly, without a single extra drop flowing out.

Not only are jars filled to a uniform, predetermined *level*, but an attractive, uniformly rounded finish is put on the product, no matter what the height or capacity of the jar.

Use of this new filling method has *completely eliminated* former problems of overflow, misapplication and spoilage. This new filling machine is a full 100% faster than the previous method used. Although we have never yet operated it at peak speed, it does the work of two machines previously used. Operation at the average production rate of 96-98 1-ounce or 35-36 3-ounce jars per minute, meets our requirements fully and only one attendant is required. Formerly this operation required *four girls*, including 3 employed in inspecting and cleaning jars.

We estimate a saving of $2700.00 per year. But even if there were no saving, good will value of filling every jar so that the customer sees he's getting full measure is well worth the investment to us.

Following are a few of the additional benefits we have obtained through use of this new filling machine.

Less Fatigue. The work of the attendant is not exacting, hence not fatiguing. One girl could easily "watch" the machine all day but attendants are changed from time to time in order to "rest" them with work which involves some exercise.

Overload Capacity. The filling machine is the F.M.C. Special designed and built by the Food Machinery Corporation, and is completely adaptable to overload and peak run requirements up to and beyond 150 1-ounce jars per minute. A Reeves Drive installed by the manufacturer permits altering filling speed to suit any required speed-up or slow-down of operations.

Reduced Filling Costs. This machine has reduced filling costs per jar tremendously. On a broad basis of

(*Continued on page 283*)

COSMETIC MANUAL

LATHERING soapless shampoos, based on synthetic detergents, by now seem to have found their proper level, namely, they are indispensable in hard-water regions, but are inclined to be too expensive for general use where their special properties are not required. The major part of the market has been retained by soap shampoos, and their popularity is stable.

The trick still lies in producing a good product that will lather abundantly, will cleanse the hair and scalp thoroughly, and will leave the hair in good condition. With proper attention to detail, such a shampoo can be made without too much difficulty.

A good shampoo consists of a clear solution of soap in water, with little excess alkalinity. The soap content may be twenty-five per cent. or more, depending upon the solubility of the soap. Its lathering and detergent power depends largely upon the fats and oils used. In previous work, this factor was studied, and the following results determined for mixtures containing twenty-five per cent. of soap.

A sodium stearate mixture is hard, almost brittle, and apparently of only quite limited solubility in water; it produces no lather. The corresponding potassium stearate is a pure white soft soap which lathers slowly and poorly, while triethanolamine stearate is slightly yellow, with about the same consistency and lathering powers as the potassium soap.

Sodium oleate solution is a very thick, clear yellow liquid which lathers moderately well. The potassium and triethanolamine oleates are somewhat more fluid and have the same lathering qualities.

The sodium soap from palm oil is hard, white, and practically insoluble. The potassium soap is a thick yellow liquid and the corresponding triethanolamine derivative is semi-liquid. Both slowly give a small-bubbled lather.

Tallow yields a hard, yellow sodium soap which lathers slowly. The potassium and triethanolamine soaps are semi-liquid.

Sodium myristate is a white solid which quickly gives a thick, abundant lather. The potassium and triethanolamine myristate soap solutions are thin, yellow liquids which quickly generate a heavy lather.

Soap solutions from coconut oil are thin, yellow liquids which lather quickly and well.

The sodium soap from olive oil is semi-liquid, with moderately good lathering qualities. The potassium soap is a thick, yellow liquid which lathers well, while the triethanolamine soap makes a thinner solution with better lathering power.

Soap solutions are made by breaking up fats and oils (which are the glyceryl esters of mixtures of fatty acids) by means of alkalies strong enough to bring about the desired decomposition. The free fatty acids immediately combine with the alkali to form soaps with the varying lathering abilities described above. Triethanolamine is not a strong enough alkali to bring about the breakdown of neutral fats and oils, so that it can be utilized only with free fatty acids previously made. On the other hand, since it is a weak alkali, it has the advantage of producing a more nearly neutral soap solution, often warranting the extra trouble and expense involved in its use.

Two general processes are available for the manufacture of shampoo solutions—the cold, and the hot process. In the first method, the melted fats are mixed with the slightly warmed alkali solution and the mixture allowed to stand until saponification is complete, about twenty-four hours. Although simpler, this first method is less likely to produce a satisfactory product; part of the fat will generally remain unsaponified, making the solution difficult to clarify and introducing the possibility of rancidity. In the second saponification method, the melted oils are mixed with the hot alkali solution and the heating continued until saponification is complete. Testing with an indicator such as phenolphthalein is the best method of determining neutrality; empirical tests, such as the determination of unattacked oil by mixing a sample of the batch with water, may also be used.

Formulas must not be followed slavishly, since they cannot take account of variation in raw material quality. In general, all that can be hoped is that the oils and alkalies will approximately balance. When the saponification operation has apparently been completed, tests must be made for approximate neutrality. It is preferable at this stage that a slight excess of alkali be present. Then a small amount of boric acid, insufficient to neutralize all the excess alkali, should be added to the batch. The shampoo will then contain a small amount of borate, with some detergent value, but the total excess alkalinity will be greatly reduced to make a much milder preparation.

For the first, approximate, calculations in formulation, the saponification value of the fat or oil, given by the supplier or preferably determined by the user, is

useful. This value represents the number of milligrams that will react with one gram of the oil. Thus, the saponification value of coconut oil may vary between 250 and 260, indicating that one gram of the oil will combine with 0.25 to 0.26 grams of pure potassium hydroxide to give approximately 1.15 grams of coconut oil soap (assuming 12 per cent. of glycerin liberated). One gram of pure potassium hydroxide may be replaced by 0.714 grams of pure sodium hydroxide or approximately 2.4 grams of triethanolamine. These figures may, however, be used only as approximations, since commercially available alkalies are not sold on a one hundred per cent. basis.

Coconut oil alone gives a shampoo of high detergent value; unfortunately, the soap is inclined to be too harsh and is usually modified by the addition of other oils. Where the solubility of the soaps permits, sodium hydroxide is often used in the alkali mixture in order to give a somewhat thicker solution.

The finished soap solution should be permitted to age and settle, in order to clarify it. Refrigeration is sometimes considered to be a necessary preparation for filtration.

Some of the formulas given below may require the addition of water in order to give products of proper consistency.

Coconut oil	16.0	54.6	
Potassium hydroxide	4.0	14.8	
Water	80.0	30.6	
Coconut oil	25.0	25.0	30.0
Potassium hydroxide	7.2	2.8	3.8
Sodium hydroxide	...	2.5	2.6
Alcohol	2.5	12.5	15.0
Water	75.3	57.2	48.6
Coconut oil	24.2		
Potassium hydroxide	6.3		
Borax	0.3		
Water	69.2		
Coconut oil	12.5	14.0	10.0
Oleic acid	15.0	10.0	14.0
Potassium hydroxide	5.0	6.0	5.4
Sodium hydroxide	0.5	0.5	0.5
Glycerin	12.0	12.0	12.6
Alcohol	5.0		
Water	50.0	57.5	57.5
Coconut oil	15.0		
Palm oil	5.0		
Potassium hydroxide	3.3		
Sodium hydroxide	1.2		
Alcohol	7.0		
Water	68.5		
Coconut oil	10.5	11.3	
Castor oil	5.0	11.3	
Potassium hydroxide	7.7	5.4	
Sugar	15.0	2.3	
Alcohol	...	2.3	
Glycerin	...	11.3	
Water	73.2	56.1	
Coconut oil	36.4	11.0	
Olive oil	9.1	4.7	
Potassium hydroxide	9.1	3.8	
Water	45.4	80.5	
Coconut oil	20.0	24.0	15.0
Olive oil	4.0	20.0	6.0
Potassium hydroxide	4.1	4.0	5.1
Potassium carbonate		4.0	
Sodium hydroxide	1.9		
Glycerin			10.0
Alcohol	15.0		6.0
Water	55.0	48.0	57.9
Coconut oil	6.0		
Cottonseed oil	8.0		
Stearic acid	4.0		
Potassium hydroxide	4.0		
Potassium carbonate	1.0		
Alcohol	4.0		
Water	73.0		
Coconut oil	6.7		
Palm oil	6.6		
Peach kernel oil	3.3		
Potassium hydroxide	4.2		
Alcohol	4.2		
Water	75.0		
Almond oil	5.0	10.0	8.9
Palm kernel oil	13.0	24.0	23.2
Sesame oil	12.0	20.0	21.4
Potassium hydroxide	5.2	10.0	8.9
Sodium hydroxide	1.0	4.0	3.6
Alcohol	5.0	8.0	10.7
Water	58.8	24.0	23.3
Coconut oil	10.0	8.0	8.3
Palm kernel oil	10.0	5.4	6.7
Olive oil	5.0	9.6	10.0
Potassium hydroxide	6.3	4.5	5.0
Sodium hydroxide	...	1.1	1.3
Alcohol	4.7	2.8	3.3
Water	64.0	68.6	65.4
Coconut oil	6.0	8.0	8.0
Olive oil	10.0	6.0	8.0
Palm kernel oil	4.0	5.0	4.0
Oleic acid	4.0	5.0	3.0
Potassium hydroxide	5.0	5.0	5.0
Sodium hydroxide	0.5	0.5	
Alcohol	...	...	8.0
Glycerin	10.0	10.0	6.0
Water	60.5	60.5	58.0
Coconut fatty acids	12.1	14.7	
Olive fatty acids	3.4	4.2	
Triethanolamine	9.7	2.0	
Potassium hydroxide	...	4.1	
Water	74.8	75.0	
Coconut fatty acids	11.1	7.4	
Myristic acid	3.9	10.1	
Triethanolamine	10.0	5.1	
Potassium hydroxide	...	2.4	
Water	75.0	75.0	

MAKE-UP BASE

By HARRY HILFER*

One truly disturbing fact from the point of view of the whole cosmetic industry, is that, out of the constant parade of cosmetic innovations coming onto the American market, only a small few survive beyond the stage of being novelties. "Here today and gone tomorrow," is the sad story of most of them. Yet, the basic reason for all these failures is to be found in the products themselves. No amount of fancy packaging will put a defective preparation across for very long. But even when a product is good, and when the test of use shows it to be satisfactory for its purpose, it is not likely to displace preparations already established. It has to have something more. Either it must be something entirely new, or be a real and tangible improvement on existing products. The few and fortunate items that have shown an instant and lasting success, almost without exception, have been products that have filled a long-felt need.

Among these latter items, one that has been in considerable demand during recent months is make-up base. Various types have appeared, and all of them seem to have been immediately successful. These new make-up bases do not as a rule displace the make-up materials already in use, but add to them and improve immeasurably the appearance and lasting qualities of the finished make-up. Their application is easy, and requires no drastic change in the usual procedure of make-up routine.

Make-up base may be used alone, but more often it is employed as a base under face powder and rouge. When used in the latter way, it serves a double purpose. It makes the appearance of the finished make-up smooth and flat by hiding the underlying blemishes and by masking wrinkles; while at the same time it forms a water-insoluble coating around each particle of powder and rouge making it impervious to moisture. When properly applied, this type of make-up will resist a real wetting, remaining in good condition even after swimming.

There are two forms of this product, first, the stick, which is applied by rubbing over the face, and second, the cream, which is applied with the fingers. Either method is easy and does not require an inconvenient amount of time. Both forms are supplied in a large variety of color shades graded to conform to and harmonize with all the shades of powder and rouge now in use.

In manufacture, the proper choice of raw materials is essential, and suitable equipment for grinding and incorporating the ingredients, must be available. If high quality materials, which will not develop odors, are used, perfume is unnecessary, and it is better omitted since the fragrance may not blend with that of the powder and rouge. But there are many high grade raw materials to choose from. Among the hydrocarbons alone there is considerable variety, and some manufacturers of excellent make-up bases prefer to use these exclusively. There is no reason, however, for omitting other substances such as beeswax or other waxes, and oils, so long as they are not members of the group of materials that become rancid on standing. By including some of these, bases can be obtained having qualities that are produced in no other way.

Of the numerous mineral oils of different viscosities available, one or more should be chosen to give the proper degree of oiliness to the finished product, for it is the viscosity of the oil that determines this property. It is well to remember also, in this connection, that the higher the viscosity of the oil, the greater will be the drag or resistance to application. But too easy application should also be avoided because it will give an impression of greasiness that is not desirable. Mineral oils, especially those of lower viscosities, also may cause "sweating" or the formation of beads of oil on the surface of the finished product. Too large a percentage of oil should therefore be avoided. Ozokerite corrects this defect to considerable extent, and in addition has other properties that make its use very desirable. It has a high melting point which tends to make the final product resistant to the effects of high atmospheric temperatures, while at the same time it does not increase the hardness. Thus, it is possible, by including ozokerite in

*Evans Chemetics, Inc.

In this article, Mr. Hilfer describes a new type of cosmetic that has only been on the market a short time but is meeting with wide approval.

the formula, to produce a base of high melting point and creamy consistency.

Paraffins, on the other hand, have the opposite effect. They are used to impart a hard, crusty quality to the base without materially raising the melting point. This characteristic of paraffin is of special value in compounding the stick type of product. Petrolatum is used to give the desired amount of "tackiness," but care must be taken in the choice of this ingredient, since the grades vary widely, and the poorer ones may develop a rancid odor.

A large number of pigments are available and any may be used that comply with the present legislation governing cosmetic colors. They are the same as are used in face powders and rouges, and are inorganic pigments and lake colors. They are included in the External Drug and Cosmetic, and the Drug and Cosmetic lists of colors certified for use. The white filler may be zinc oxide, titanium dioxide, barium sulfate, kaolin, or talc, or combinations of these, depending on the properties desired. Barium sulfate, zinc oxide, and titanium dioxide should be regarded more as pigments than as fillers because of their high covering power. There may be some objection to the use of barium sulfate, because of the toxicity attributed to soluble barium salts, but the sulfate is an extremely insoluble and stable compound, and as such is innocuous. Talc and kaolin have a transparent quality that is often desirable. By using any of these fillers alone or in combination with the others, the compounder is able to achieve almost any desired effect.

In the manufacturing process, either an ointment mill or any other suitable grinding apparatus may be used to cut the particles of pigment down to the proper size, and to effect an intimate mix between pigment and base. After thorough mixing, the mass is melted and poured into molds for the sticks, or directly into cases for the cream type of product. At this stage of the process, there may be difficulty in pouring because air has become included or admixed with the material. To overcome this, the mass should be held in the melted state until the air is driven out, or the batch should be allowed to stand at room temperature for a few days. It is sometimes desirable also to include a wetting agent in the formula to reduce the surface tension between the base and the pigments, thus making their incorporation easier. There are several on the market that are suitable for this purpose.

If this general outline is followed, there should be no difficulty in producing an excellent make-up base of the new type that is proving so popular. Two type formulae are given below, but by varying these along the lines suggested, a finished product can be obtained that will conform to the ideas of the individual compounder.

	Stick Type	*Paste Type*
Mineral oil	50	60
Petrolatum	50	50
Paraffin	20	10
Ozokerite	30	30
Titanium dioxide	10	10
Zinc oxide	20	20
Kaolin	20	20
Talc	20	20
Color	as needed	as needed

Improving Filling Methods

(*Continued from page 279*)

comparison with our previous methods, it has reduced filling costs *75% below previous levels.*

Lowered Depreciation. This is a minor point but still of importance over a period of years. Because the one machine replaced two others, we actually save money while it is idle as only one machine is depreciating in value.

Considering all of these benefits in production, operating costs reduction, time and labor saving and employee benefits plus the *certainty* we now have of furnishing a completely filled jar with uniform "crowned" appearance, this installation is one of the most important we have ever made. We are certain now that our filling operation fully meets "1940" operating requirements and the requirements of several years in the future.

SKIN PROTECTIVES

By M. A. LESSER

In the minds of most cosmetic manufacturers, the term "skin protective" appears to apply only to the standard line of items, such as hand lotions, suntan preparations and the like, aimed at preventing skin injuries from the vagaries of the weather. However, in the same category as these and definitely within the realm of cosmetology are the now-important industrial skin protectives for the prevention of occupational dermatoses. Strangely enough the vast potential market for these preparations seems to have been almost entirely neglected by cosmetic manufacturers, who by experience and availability of production facilities are best suited to market them.

Some concept of the importance of industrial skin protectives may be obtained from the fact that diseases of the skin due to occupation represent from 10 to 12 per cent. of all diseases of the skin, and that they account for approximately 65 per cent. of all disease due to occupational factors, excluding industrial accidents.[1] The findings of Schwartz[2] of the U. S. Public Health Service show that occupational dermatoses are increasing while other industrial diseases are decreasing, bringing the figure up to about 70 per cent. This authority reports that more than a quarter of a million industrial workers annually lose time from their jobs because of skin diseases directly traceable to chemicals and other substances they are required to handle as part of their daily work. He further asserts that each case of industrial dermatitis costs $200.00 on an average—$100.00 as compensation and a similar amount for medical costs.[3] The importance of preventive measures should be quite obvious.

According to Schwartz, "The predisposing causes of occupational dermatoses are personal and environmental factors which impair the defense mechanism of the skin against external irritants." These are: 1. *Race.* Blondes and fair-skinned people ard more susceptible to skin trouble from chemical irritants than are darker, oily skinned people. 2. *Perspiration.* This normally acts mechanically to remove and dilute skin irritants, but when excessive and combined with friction may itself cause irritation and maceration of the skin. The pH of the perspiration also affects the solvent properties of chemicals and may thereby affect their action on the skin. 3. *Diet.* Foods not only affect the pH of the perspiration but also the relative proportions of certain elements in the skin; a high calcium-potassium ratio being present in cases of heightened sensitivity. 4. *Age.* Acute eczematoid types of industrial dermatoses affect young men or newcomers, while chronic forms occur mostly among older workers. 5. *Sex.* More men are affected by industrial skin diseases than are women. 6. *Season of the Year.* Skin affections are more prevalent during warm weather. 7. *Other Dermatoses.* Other skin diseases, particularly if accompanied by itching, predispose to industrial dermatoses. 8. *Cleanliness.* Lack of personal and environmental cleanliness is considered a primary contributing cause of occupational dermatoses. 9. *Hypersensitivity.* Impairments of the natural defense mechanism of the skin are considered the most frequent causes of hypersensitivity. 10. *Allergy.* This is not a frequent cause of occupational dermatoses.

Although the increased use of synthetic compounds in industry and the development of new compounds has increased the incidence of dermatoses among industrial workers, industrial dermatoses are far from being new ailments. Many people are conversant with these diseases through such indicative names as "baker's itch," "ink acne," "zinc pox," "sugar itch," "glue rash" and the like. It is now firmly established that chemicals, including plants, are the most frequent causes of these industrial skin affections. The figures of the U. S. Public Health Service[2] indicate that the ten leading chemical causes, in the order of their importance, are: petroleum oils and greases, alkalis (including cement and concrete), solvents, chromic acid and salts, metals (including metal plating), dyes, plants, rubber and its compounds, paints and varnishes, and synthetic resins.

It is known that many chemical and industrial compounds are capable of producing occupational dermatitis in workers who have no specific cutaneous sensitivity. Acis, alkalis, hypertonic solutions, soaps, gases, vapors, fat solvents, cement, plaster, lye, metallic oxide and hot water are among these substances.[4] According to White,[5] these agents may exert their dermatitic action by (1) dissolving the horny layer, (2) dissolving the protective natural grease on the skin, (3) protein precipitation, (4) desiccation, (5) dissociation or hydrolysis in water to form irritating compounds from non-irritating substances, (6) oxidation, or (7) reduction. The type and degree of reaction on the skin depends, in turn, upon various factors; the character of the substance, the concentration and the degree of exposure to the irritant.

With this factual background as a basis, it is now possible to proceed with the discussion of actual measure and materials for the prevention of industrial dermatoses. As was previously briefly indicated, lack of cleanliness has been found to be the most important predisposing cause of these dermal diseases. Not only is personal cleanliness most vital, but equally important is cleanliness of the work environment. It is known that a daily cleaning of floors, walls and machines, plus a daily change to clean work clothes and compulsory shower baths have done much to lessen the occurrence of occupational dermatoses. Skin protectives are most important adjuncts to cleanliness in the prevention of skin diseases, but they cannot be considered substitutes for proper personal and environmental hygiene.

Of course, the ideal way to prevent dermatitis is to prevent the irritating substances from coming into contact with the skin at all. Mechanical handling would be ideal but too often is not feasible or possible, so that other means must be provided. These consist of efficient protective clothing for the body and a choice between gloves and a skin protective for the hands. Silver,[6] a British authority, points out that gloves are hardly satisfactory since they are expensive, easily punctured, uncomfortable, cause excessive perspiration and on occasion may even cause dermatitis. He advocated that gloves be reserved for those occupations in which no other protection is adequate, such as in the handling of strong acids, strong alkalis and hot metals.

Silver comments on the fact that the number and use of skin protectives or "barrier substances" is increasing. By the use of such modern skin protectives the workers are not only able to clean their hands more thoroughly at the end of the day, but what is more important, they also secure a protection against both skin absorption and skin irritation from chemicals.

Since there are so many different types of chemical irritants, it is but to be expected that there should be many different types of skin protectives. Mumford[7] suggests that the protectives in use may be conveniently classified into four groups. The first group consists of fats and oils such as petroleum jelly, lanolin, wax and the like. This is perhaps the oldest form of skin protective, and greases have long been used by engineers and others who work with dirty oils and greases. The custom of rubbing clean grease into the hands and around the finger-nails before commencing work is still employed by mechanics to enable more ready cleaning at the end of the day. However, the disadvantages of this group of protectives are quite obvious. Not only do fats and oils stain readily, but they require strong detergents for their removal, which may in turn induce dermatitis.

The second group is composed of jellies containing materials such as starch, tragacanth, agar, glycerine and honey. As such, jellies are not considered likely to exert any physical or chemical protective action other than that of a barrier. They are not adherent enough, are readily soluble in water and are highly absorptive.

Emulsions, the third group, are perhaps the most efficient of the skin protectives, and, depending on their composition, have varying protective effects. Actually a combination of the ingredients of the first and second groups, emulsions are more easily and evenly applied to the skin, but have a tendency to leave a fatty barrier on the dermal tissues, necessitating harsher cleansing action for their removal. They must be carefully prepared to remain stable on the skin and exert a continuous protective action.

Soap bases, e. g. stearates, oleates and plamitates of alkalis, form the fourth group of skin protectives. Their chief disadvantage is the possibility of skin irritation due to the presence of free alkali.

Of course, there are no hard and fixed lines of demarcation among these groups. Ingredients of one class are very frequently combined with those of another, aside from the emulsion group, to give better results and finer qualities.

The ideal skin protective must possess certain definite characteristics and properties, and although standards for such products have been proposed by several authorities, the description given by Mumford is perhaps the most inclusive and concise. Says this investigator, "The ideal protective agent must thus be of a certain chemical and physical nature and possess characteristics not fulfilled by any known products available today. In brief, it must (a) be easily spread; (b) remain stable in the presence of most other chemical agents; (c) provide an oil film of low surface tension; (d) be not hygroscopic (be dehydrating); (e) be non-transferable; (f) be without capacity to "cut"—that is, break up and allow penetration of chemicals through itself; (g) be able to prevent heat insulating effects by providing low surface tension and a capacity to mix with water; (h) if possible, be to some slight extent absorbed into the skin, and must certainly fill the hair follicles with inert but easily removed substance; (i) should be easy to remove without the use of scrubbing-brushes or a detergent other than good soap."

From this it is quite evident that the preparation of efficient skin protectives bristles with difficulties. But

if the problem can be tackled at all, it would appear that its solution would most likely come from the cosmetic laboratory where a knowledge of the skin is an essential part of the producer's equipment. It is not to be presumed, however, that the formulation and production of industrial skin protectives has gone neglected. As a matter of fact may quite satisfactory products for specific needs are available and formulas for their manufacture are obtainable from the research, industrial, and patent literature. The following formulas have been gleaned from such sources.

Typical of the fat or oil group of protectives is a mixture of castor oil and lanolin recommended as a prophylactic against oil pimples prevalent among workers who operate highspeed metal cutting machines where a coolant is used. This mixture is applied to the hands and forearms after they have been thoroughly cleaned and dried, prior to the day's work.[8]

Skin protecting jellies are quite popular and are comparatively easy to make. According to a fairly recent patent[9] such a product, claimed to form an invisible "third skin" on the hands to protect them against dirt, grease, paint, oil, ink or gasoline, can be made from:

Hard soap	128 oz.
Sodium silicate	110 oz.
Glycerine	100 oz.
Potato starch	2 oz.
Distilled water	32 lb.
Cotton seed oil	3 oz.

If desired, a few drops of perfume may be added.

It is said that when rubbed into the hands before working to form a light film over the skin, this material is elastic, permits the passage of perspiration without the loss of its protective properties and will protect the natural skin for at least eight hours. It is easily removed by merely washing with water.

Another protective of this type, described in an earlier patent[10] contains:

Sodium silicate	906 parts
Glycerine	1155 "
Sodium stearate	288 "
Water	1600 "
Lemenone	1 part

A protective hand cream in which a soap is the basic material, is suggested for appplication prior to the use of dry pigment, colored lacquers, enamels, paints and the like.[11] The mere use of water, it is said, very easily removes the film and the adherent materials. It consists of:

Gum arabic	20
Chip white soap	80

Add water until the desired consistency is obtained.

An early protective cream, of a somewhat similar type, for application to the hands prior to engaging in mechanical work, has been found to be very satisfactory in actual practice.[12] It consists of:

Oleic acid	4 oz.
Hydrous wool fat	½ oz.
Alcohol	3 oz.
Solution of potassium hydroxide (1:1)	sufficient
Glycerine	½ oz.
Borax	½ oz.

Mix the acid with the wool fat and alcohol and neutralize with the hydroxide solution to phenolphthalein. Then incorporate with the paste formed by mixing the borax and glycerin.

Perhaps emulsions form the most satisfactory skin protectives. They are now considered the most important and most efficient of these essential industrial materials, but their formulation, as has been previously indicated, necessitates consideration of many factors. One mechanic's protective hand cream can be made from[13]:

Glyceryl monostearate	8
Magnesium stearate	14
Beeswax	3
Petrolatum	10
Mineral oil	5
Water	60

Heat together to 70° C. and stir until cool.

Quite recently, Silcock[14], a British dermatologist, commenting on Mumford's observations, presented the formula for a skin protective which has had the benefits of three years trial, and which has proven highly satisfactory, reasonably cheap, requires no special equipment to prepare and is quite elegant cosmetically. The protective is made from:

Stearic acid	2½ oz.
White beeswax	1 oz.
White petrolatum	2½ oz.
Mineral oil	1½ oz.
Melt and emulsify with heated	
Triethanolamine	4 dr.
Boiling water, to make	24 oz.
then incorporate	
Magnesium stearate	2 oz.

A little of this cream is rubbed into the skin, and even if fabrics or paper are handled, no grease marks are left. The magnesium stearate serves a double purpose; to give body to the cream and also to act as a mechanical barrier to chemical irritants. Although the cream is slightly alkaline, Silcock states that this is no disadvantage. Unfortunately degreasing substances will remove the protective coating, rendering it ineffective for use in connection with solvents. This authority is of the opinion that a skin protective is well worthy of trial in many cases of occupational dermatitis. Silcock takes time out to suggest that more attention should be paid by doctors to the chemistry of emulsifying agents and solvents to improve medicating agents.

Skin protectives are finding a definite place in preventive industrial medicine. Recently safety engineers were reported to be conducting successful tests on a new protective cream which forms a thin, tough film over skin surfaces. Not only is this film claimed to shut out infections, but also to protect workmen against dermatoses due to varied irritating substances in many industrial fields.[15] Schwartz,[16] in his review of industrial skin hazards, specifically suggests the use of skin pro-

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WORLD PEPPERMINT OIL

By HUGO STRAUSZ, Ph.D., LONDON

OF ALL essential oils, peppermint oil has come to have the greatest significance, as an important ingredient of most tooth pastes, dental creams, mouthwashes, chewing gums, cough drops. Likewise the menthol derived from peppermint oil is used in countless cosmetic and pharmaceutical preparations, because of its cooling and refreshing action, in tremendous quantities. Especially since the World War, the production of peppermint oil has been worthy of special attention in the six countries which are the chief producers, viz., England, Japan, U.S.A., Italy, Bulgaria, and Soviet Russia, in addition to the lesser production of many other countries. The world production of peppermint oil and menthol today represents, even with very low world market prices, a value of around 10 million dollars.

The supply of peppermint oil in the entire civilized world is so great and the difference in price of the oils which are brought on the market is so considerable that for the consumer the choice among them becomes quite difficult. Most medical books confine themselves to the demand for purity, which mostly refers to the physical and chemical constants of natural, pure peppermint oil, without closer testing and rating of the odor and taste.

One test, however, is intended to exclude the use of Japanese peppermint oil, which is known to have a scratchy and bitter aftertaste, in supplementing more expensive and better peppermint oils. Meanwhile it has been possible by various patented and secret processes to get rid of most of the bitter taste of the Japanese oils, so that numerous manufacturers of essential oils now put on the market peppermint oil mixtures at low prices as a uniform brand with Official constants. These mixtures consist chiefly of a blend of American, Italian, or other European peppermint oils with rectified Japanese oil. The price of such peppermint oils depends upon the relative proportion of Japanese oil.

Another important factor in the price and quality of such peppermint oil mixtures is the question whether the components are put into the mixture as crude or as rectified oils. The rectified oils differ again from one another in quality in the process of rectification, since the steam rectification gives less yield and poorer quality, than the rectification in high-vacuum apparatus. In the rectification the crude oil is rid of its odorless bad-smelling components (terpenes and resins) by separation of the fractions, evaporating at commencement and conclusion of the distillation, and only the specially collected main portion is used as rectified oil for the making of finer types of peppermint oil. This process involves about 15 to 20% weight loss of the crude oil, with a corresponding increase in cost of the rectified oil, which again shows a 5 to 10% greater content of total menthol since there is but very little menthol in the first and last runnings.

	Japan (dementholized)	*U.S.A. East*	*U.S.A. West*	*England (Mitcham)*
Specific weight at 15° C.	0.901	0.905	0.907	0.905
Optical rotation	−28°40′	−28°40′	−25°40′	−23°50′
Solubility in 70% alcohol	1:3	1:4	1:2.7	1:3
Ester content	10.5%	7.6%	9.6%	4.1%
Ester menthol	8.3%	6.0%	7.6%	3.7%
Total menthol	52.0%	52.9%	60.6%	65.1%
Menthone	25.0%	9.0%	11.1%	9.8%

	Italy	*Bulgaria*	*France*	*Soviet Russia*
Specific weight at 15° C.	0.910	0.904	0.905	0.904
Optical rotation	−18°0′	−19.50′	−20.40′	−25.30′
Solubility in 70% alcohol	1:3.4	1:3	1:2.8	1:2.6
Ester content	5.2%	9.2%	4.95%	7.2%
Ester menthol	4.1%	7.27%	3.95%	5.7%
Total menthol	49.2%	53.5%	49.1%	53.9%
Menthone	15.0%	11.0%	12.0%	10.5%

The table above shows analyses of crude peppermint oils from Japan, England, U.S.A., Italy, Bulgaria, France, and U.S.S.R.

The preceding analyses refer to crude oils which in a long series of tests as well as in their rectification (have proved themselves) to be typical representatives of the oil yield of the land involved. The high quality of the genuine Mitcham oil is conspicuous at first glance. Noteworthy also is the unusually high menthone content of the Japanese oil as proof, that the peppermint in this country is harvested too early, i.e., between the formation of the buds and the commencement of blooming. Experiments of Rutowski and Trawin have shown that the menthol content of the peppermint oil increases during the growth of the plants, whereas the

menthone content decreases. It might be interesting here to note that a too high menthone content (over 15%) influences unfavorably the quality of the peppermint oil in taste and smell. From the above analyses it is also evident that the American oil has a great similarity to the oil obtained in Bulgaria, a sign that in these countries, planting, cultivation, and harvesting are carried out accordingly by rather similar methods. The resin content is also important as proof that the peppermint plant, after the harvest, is dried in the open field in the sunshine, or withered or dried in the shade. There are many influences which are of great importance to the quality of the crude oil, e.g. the proper fertilization and choice of the soil, the variety of plant, the moistness of the soil, climatic conditions (much rain in spring, much sun in a rainy summer), not least of these being the conscientious removal of weeds, which could cause foreign aromatic substances in the oil. Especially important are crisp mint (mentha crispa), plantain (plantago lanceolata), artemisia (artemisia vulgaris), knotgrass (herba polygoni) and many other weeds which contain essential oils or glycosides, having a runious effect on the odor and flavor of the peppermint oil.

The peppermint raised in Europe and the United States has, almost without exception, been planted from peppermint shoots from the vicinity of Mitcham (Surrey). It is the black mint (Mentha piperita nigra L.) variety Mitcham, which according to the newest researches is to be regarded as a triple hybrid of Mentha aquatica and Mentha viridis (Mentha longifolia x Mentha rotundifolia). The manufacturers and distillers are accustomed to designate the peppermint oils obtained in Europe which are distilled from these plants in general as the Mitcham oils of the country of production, as e.g. Italo-Mitcham, Franco-Mitcham, etc. It is to be assumed with certainty that the perfume manufacturers and peppermint oil producers in no case adulterate the oils or oil mixtures, which they put on the market with the designation Mitcham, with oil fractions of the Japanese oil, since they would thereby spoil the fineness, sweetness and spiciness of odor and taste, i.e. the most important properties for the subjective judging and rating of the rectified oil. To protect the good reputation of the American peppermint oil, the United States Department of Agriculture has declared that Japanese crude oil, which comes from a sub-species hybrid of Mentha arvensis D.C. (varietas piperascens Holmes) and Mentha aquatica, is not a real peppermint oil and may not be designated as such. The importation of Japanese oil to America is permitted under the name of "cornmint oil," but genuine American oils which are adulterated with Japanese oil must bear the inscription, "Perfumed with cornmint." In addition to this the American importer of Japanese oil must render account to the government of what becomes of the oil. If the crude oil is rectified in America, only the fractions rich in menthol may be consumed in the country, while the terpene and resin-containing first and last runnings must be destroyed or at most used for technical purposes. Even though this ruling of the U.S. Government is somewhat arbitrary and is attacked especially by botanists and drug experts as incorrect, it proves nevertheless that the U.S. Government is determined to protect its peppermint oil export by a peppermint oil quality with the best of reputation, whose parent plant is only the black peppermint brought from England. The white mint (mentha piperita var. forma palescens) which was formerly very popular in England and yields an especially fine Mitcham oil, though only with quite small yield, is also extremely sensitive to bad weather, insects and diseases of the plant, is disappearing more and more, so that the world production outside of Japan is obtained in the main only from the black Mitcham peppermint acclimatized in the various lands. Naturally in the larger producing countries very exhaustive experiments in cultivation, crossing and selection are being undertaken with acclimatized plants in test fields. This is, on the one hand, to preclude a degeneration of the original English plants and on the other to promote the planting of those plants which deliver the highest oil yield and the best-tasting oil with the highest menthol content. In this field the United States Department of Agriculture and the Soviet Russian State Agricultural Experimental Stations in Lubny, Olgino and Saratow have particularly distinguished themselves. Some years ago I was able to see this for myself as an expert and guest of the Soviet Russian Government at the large-scale experimental stations in Lubny (Ukraine) and Olgino near Moscow.

The peppermint oil obtained in Japan, which constitutes more than half the world production, besides its bitter and disagreeable taste, is distinguished from the other oils by the fact that it contains 70 to 90% menthol. From the crude oil a part of the menthol content (40 to 50%) is removed by the cooling and separation of the menthol crystals and put on the market as crude menthol, while the so-called "de-mentholized" Japanese oil with a total menthol content of 40 to 50% remaining from this treatment is exported in huge quantities. Due to especially favorable producing conditions, the last-mentioned Japanese oil has always been much cheaper than the peppermint oils from black mint obtained in the other producing countries. The dementholized crude Japanese oil is therefore the cheapest raw material for the obtaining of natural menthol, since this oil still delivers about 25% of recrystallized menthol, B.P. quality, and from its high menthone content a further 15% by weight of synthetic menthol with 37/39° melting point can be obtained by chemical reduction after the separation of the natural menthol. Earlier and more recent researches have shown, too, that the bitter and quite disagreeable taste of the Japanese peppermint oil is due to its content of pulegon, menthenone, furfural, *B*-Hexenol or its phenyl-acetic ester and hexene acid and a few other chemical substances not yet fully investigated, whose separation from the oil, like the debitterizing of same by chemical means, has not yet been completely accomplished.

However, the presence of Japanese peppermint oil can be detected and to some extent estimated not only by the test of odor and flavor by connoisseurs, but also by following the chemical test of D. C. Garratt (Analyst 60/1935 and Schimmel & Co. Annual Report 1936).

For the price of the Japanese oil the production results and the harvests of the various years were hitherto the principal determining factors. The prices of the quality peppermint oils of other producing countries have for a long time followed the prices of the American peppermint oil, which in turn, through poor harvests and lack of supply, overproduction and reduced demand, and not less through speculative buying by big business men, has especially in the years 1924-1930 undergone extraordinary price fluctuations. As top price for American peppermint oil at the end of 1925 up to $28.50 per lb. were paid to the producers and the oil was, during this boom time, dealt with in Europe at as much as £5. to £6. per lb. The market for European peppermint oils essentially follows even today, the prices of the American crude oil. The constantly high prices for genuine Mitcham oil, have no influence at all on the fixing of the world market prices.

The production of the most important peppermint oil countries follows, with short historical notes:

England. According to a study of J. & G. Miller, Mitcham, a distillation of peppermint oil on a factory scale commenced in Mitcham (Surrey) in the year 1840. By industrious cultivation and selection of the black and white peppermints, those plants had been developed, which with maximum oil-yield, delivered the finest and strongest oil in fragrance and aroma. The genuine English Mitcham oil is distinguished by a particularly high content of total menthol and free menthol and by a particularly low content of menthone, terpenes and resin, whereby the oil has in taste an especially strong and spicy character besides a sweet smell, which is designated in the peppermint oil department simply as "Mitcham character."

I should not fail to mention that in the districts of Norfolk, Suffolk and elsewhere some hundred acres of land are planted with genuine Mitcham peppermint yielding from 2,000-3,000 lbs. "Genuine English Peppermint Oil." This oil does not particularly possess the Mitcham character because the climate and soil conditions in these districts are different from those of Surrey (Mitcham). Nevertheless samples of crude and rectified oils examined show beside a total menthol content of not less than 54%, a first class flavor, strong, sweet and tenacious, that could well be compared with the character of the finest West-American oils (Oregon, Washington).

Japan. The Japanese peppermint cultivation is the oldest on earth; the Japanese claim even to have produced menthol before the birth of Christ. The Japanese oil and menthol production did not gain importance in the world market until the nineties, but by 1914 it had reached half of the world production.

In comparison with the mediocre production in postwar years of 420,000 kin (1 kin=600 grm), a steady increase with a considerable overproduction of crude oil has taken place in the last 5-6 years through increased planting. According to Schimmel & Co. Annual Reports the production figures were:

1936	975,000 kin
1937	1,500,000 "
1938	1,600,000 "

The overproduction balances not consumed or exported during the previous years were:

end of 1936	700,000 to 800,000 kin
end of 1937	500,000 kin
end of 1938	600,000 kin

These figures show that about 2,100,000 kin crude oil in 1938 and about 2,200,000 kin this year were available for consumption in Japan and for export.

The following figures of total consumption in 1938 may be instructive:

Export	486,456 kin "dementholized" Peppermint Oil
	387,953 kin Menthol
	100,000 crude oil consumed in Japan
	48,500 crude production losses.
	1,022,900 crude total consumption in 1938.

The prices for "dementholized" Japanese Oil fluctuated in 1938 between 4/- and 4/4d. per lb. cif London, and the prices for Japanese menthol between 10/3d. and 11/8d. per lb.

Interesting also are the export figures for the years 1935-1937:

Import Country	*1935* Kin	*1936* Kin	*1937* Kin
China	500	400	4,200
British-India	20,900	14,300	14,300
Straits Settlements	18,800	51,300	32,900
French-Indo-China	1,900	6,900	3,500
Great Britain	149,700	104,000	60,100
France	167,500	189,500	182,400
Germany	149,100	171,800	256,700
Australia	2,200	2,300	4,500
Other Countries	27,900	37,400	74,200
Total	538,500	577,900	632,800

The total Japanese menthol exported in 1937 was 217,922 kg. valued at 3,276,000 Yen, and it may be mentioned, that 57% of this quantity was exported to U.S.A.

The Japanese peppermint oil is obtained chiefly in two great producing areas, viz. about 75% on the northern Japanese island Hokkaido and about 25% in the Sambi province in the southwest tip of the mainland, and peppermint is also produced in Korea. This relationship has changed recently in favor of the Hokkaido region, since the cultures in Sambi province, which really deliver a crude oil with more menthol content, have been visited by lengthy droughts and by typhoon damage, and will deliver despite quite large planted areas a much smaller yield of crude peppermint oil than expected.

United States. From New York State, where peppermint was in the beginning of the 19th century first raised and distilled commercially the peppermint cultivation spread over several northern states, viz. to Ohio,

southern Michigan and northern Indiana. For about the past 30 years Michigan and Indiana constituted the principal production areas: the cultures on about 25,000 acres yield according to the crop, fertilization, planting methods and luck with the weather 24 to 42 lbs. of crude oil per acre. In addition there are newer peppermint plantations in the States of Oregon, Washington, California and North Carolina with together about 5000 acres of land, so that the planted area in the U.S.A. this year can be estimated at 30,000 acres. If we reckon as an average yield only 25 lbs. of crude oil per acre, we must estimate this year's peppermint oil crop of the United States to be at least 750,000 lbs. My estimate agrees pretty well with the estimates from well-informed sources, and it is to be remarked that according to official data of the U. S. Department of Agriculture in 1938, in the United States 28,170 acres were under peppermint cultivation and the planting had made great advances especially in the State of Oregon and Washington.

The main importing countries according to Chemist and Druggist 129 (1938), 64. in 1937 were England with 155,000 lbs., Germany with 56,000 lbs., Canada with 28,730 lbs., France with 23,300 lbs., and Holland with 12,000 lbs. Prices fluctuated generally between $2.10 and $2.30 per lb. The looked for improvement of the market and prices in the immediate future is not very good. That is to say, that the American peppermint oil as a result of the highly developed cultivation, drying and distillation methods constitutes a qualitatively very competitive ware and distinguishes itself from many European oils by an especially powerful and spicy flavor and above all by a long lingering and cooling after-taste. Connoisseurs call it "American character" in comparison with the "Mitcham character." It may be mentioned that the oils coming from Oregon and Washington particularly have this "character" thanks to their exceedingly high content of total menthol (up to 60-62%).

Italy. In upper Italy peppermint plants have been raised since 1870 and oil distilled from them. But since these were native plants, the oil was inferior and of no use for export. Shortly before the World War broke out, Mitcham plants were imported into Italy and planted in the vicinity of Pancalieri, Vigone, Polonghera, Faule and Savigliano—in the plan of Piemont, south of Turin, and in the last few years also in the Venetian district. The oil has been extracted, for about 20 years past, under the name Italo-Mitcham in some 50 distilleries, partly by the obsolete water distillation process, but mostly by modern steam plants. The production had in 1921 already reached 20,000 kg and increased in the years 1924 and 1925 to 30,000 to 40,000 kg. In the year 1926 the production reached a record height of 122,000 kg, while it reached in 1927-1929 to an average of 60,000 kg per year. In the last 6-8 years the production receded again to an average of 25,000-35,000 kg per year, the figure for 1938 being 35,000 kg. A further increase of the production is not probable because the stocks are too high and the competition of the excellent Bulgarian oil makes the export more difficult.

The Italian crude oil obtained mainly from English plants is distinguished by an especially sweet odor and a very mild flavor, in which unfortunately the sharp spiciness of the American and the genuine Mitcham oils is missing. For this reason rectified Italo-Mitcham oil can be advantageously used for perfumery only in mixtures with American oil or equivalent and equally spicy European oils.

Bulgaria. The noticeable dvelopment of the peppermint oil production in Bulgaria shows the following figures; according to Schimmel's Annual Reports 1938 and 1939:

1932	90 kg
1933	700 "
1934	1,600 "
1935	4,030 "
1936	11,100 "
1937	36,500 "
1938	65,000 "

The export figures show in the last five years the following positions:

1934	102 kg
1935	4,478 "
1936	9,684 "
1937 (about)	24,000 "
1938	26,625 "

The sudden increase of the production in Bulgaria is due to the fact that the World-famous production of Otto or Rose has since 1930 become very uneconomical. The farmers changed their rose plantations for plants of Mitcham peppermint received from Hungary with the help of the Bulgarian Government. According to a report of K. Shipkoff in Perfum. Record 29 (1938), 428 the planted area is approximately 5000 acres, distributed in the main plantation districts of Dabene, Karlowo, Bania, Strema and Tundscha, Swistow, Sofia, and Razgrad.

The excellent climate and earth conditions and—not the least—the diligence and cleverness of Bulgarian farmers in gardening made this oil suitable for competition in the world market. The Bulgarian oil has a definite American character, and with its high menthol content (not less than 55%—mostly 60-61%) can best be compared with the finest West-American Oils of Oregon and Washington.

Soviet Russia. After an old fashioned peppermint oil extraction from native plants in the past century, English Mitcham plants were imported first in 1895 in Ukraine and planted in sizeable test beds in the State Agricultural Experiment Station. From here gradually large areas were planted in the region of Poltawa, Priluky, Schurawka and other places with good black soil, and for the distillation of the plant a few steam distilling installations were erected. Production statistics before the war and since the revolution are not available; it is only certain that the oil production in 1914

was about 10,000 kg and that up to the year 1927 considerable quantities of peppermint oil were still being imported. In the last ten years increasing attention has been given to the production of peppermint oil. Besides the places mentioned, sizeable test cultures have been laid out in Olgino near Moscow, in the governments Kasan, Tula and North Caucasus, from which, chiefly, the plantations in North Caucasus deliver a very superior oil with 53 to 55% menthol and only 9% menthone. There are at present in this locality about 600 hectares under peppermint cultivation and it is hoped to extract a yield of 12,000 to 15,000 kg oil. The plantations and the distilleries are alleged to belong to a Polish-Russian stock company "Sowpoltorg," which is under State supervision. Of distinctly more importance are the peppermint cultures in the above-mentioned districts of Ukraine of around 5,000 hectares of land. The oil yield is normally 20 to 25 kg per hectare and it is hoped for 1939 to achieve in Ukraine alone a production of 110,000 to 120,000 kg crude oil. The entire production expected for this year would be estimable at about 150,000 kg and it is to be noted that the annual national consumption in Soviet Russia according to reliable information is 80,000 to 90,000 kg of crude oil. The surplus of about 60,000 kg has for some years appeared in the world market, as was the case in 1928. At that time more than 40,000 kg crude oil were exported to foreign countries but this oil found purchasers only in part, as it contained too much menthone and resin and its content of total menthol varied from 45 to 50%.

However, the modernization of the Ukrainian peppermint-raising and an important improvement in the refining plants have made enormous progress during the last few years, so that choice qualities of Ukrainian crude oil appear now in the world market with 53 to 58% menthol and 10 to 14% menthone content, nearly free of resin. I have proved that the flavor of several deliveries show an amazing resemblance to genuine Mitcham Peppermint Oil with its especially strong and spicy character and its sweet smell.

Rumania. Upon the instigation of the company Leo Werke in Dresden the very active farmers of German origin in Burzenland by Kronstadt in Siebenburgen took up the culture of black Mitcham peppermint in 1926, which is processed by the firm mentioned, in a large, technically perfect distillation plant. Peppermint grows quite luxuriantly in the black, very nitrogenous soil with its high underground waterlevel and in the favorable climate. The crude oil contains 55 to 62% total menthol, 7 to 12% ester-menthol and is with its spiciness, fragrance and especially strong aroma equal to the best American oil qualities. The yield in 1938 was in spite of unfavorable weather conditions 3500 kg crude oil. This year about 150 hectares of peppermint have been planted. A hectare of land produces (by especially fruitful planting methods) about 25 kg of oil.

The Rumanian oil is not available in the world market. Besides small quantities sold in Rumania the main part of the production is absorbed by the above mentioned private company.

Hungary. According to a report of E. Guenther the main part of the Hungarian peppermint plantation of 300-350 hectares is used as dried drug, leaf-ware. Only a relatively small part of the plants grown in the districts of Nyiregyhaza, Kalocsa and Zala are distilled. The Hungarian Oil is a very fine quality of American character, 48 to 71% total Menthol, 7.4 to 14% Menthone. According to private information the yield in 1938 was about 4000 kg. The prices follow regularly those of American and Bulgarian Oils, Germany being the main importer.

France. In the region of Grasse (Alpes Maritimes) Mitcham plants were introduced in 1920 and propagated in a plant-nursery. Tests show that by choosing a good soil and a warm climate a product similar to the Mitcham oil with lesser ester content can be obtained. The oil designated as Franco-Mitcham possesses actually a sweet, high-grade aroma and is also not lacking in strength and spiciness. The production is, to be sure quite insignificant with the American and Italian outputs in comparison. The oil yield improved in the years 1927 to 1929 and now on the average of 30 kg of oil per hectare—10,000 kg fresh plants are extracted. In accordance with statements of the journal "Les Parfums de France," the planted areas have decreased again during past years, so that the French oil crop for this year can hardly be estimated higher than 2000 kg. The rectified Franco-Mitcham oil costs 40/-per lb., and is nearly as expensive as the genuine Mitcham oil.

China. It is worthy of special mention that in Kian in the Province of Kiangsi it is estimated that 8000 katties (1 kattie=0.6045 kg) of peppermint oil are produced. The Chinese oil is just as rich in menthol as the Japanese.

Germany, Poland, Holland, Australia, Chile, Jugoslavia.

The plantations and distillations undertaken in these countries for the past few years are of subordinate importance and do not affect the world market. The combined production of these lands might be estimated at around 10000 lbs.

If we collect the production yields ascertained or estimated in the various countries for the year 1938, we have the following picture:

England	5.000 lbs.
U. S. A.	732.000 "
Japan	2.200.000 "
Italy	77.000 "
U. S. S. R.	330.000 "
Bulgaria	143.500 "
Hungary	8.800 "
Rumania	7.700 "
France	4,400 "
China	10.100 "
Other countries	10.000 "
	3.528.500 lbs.

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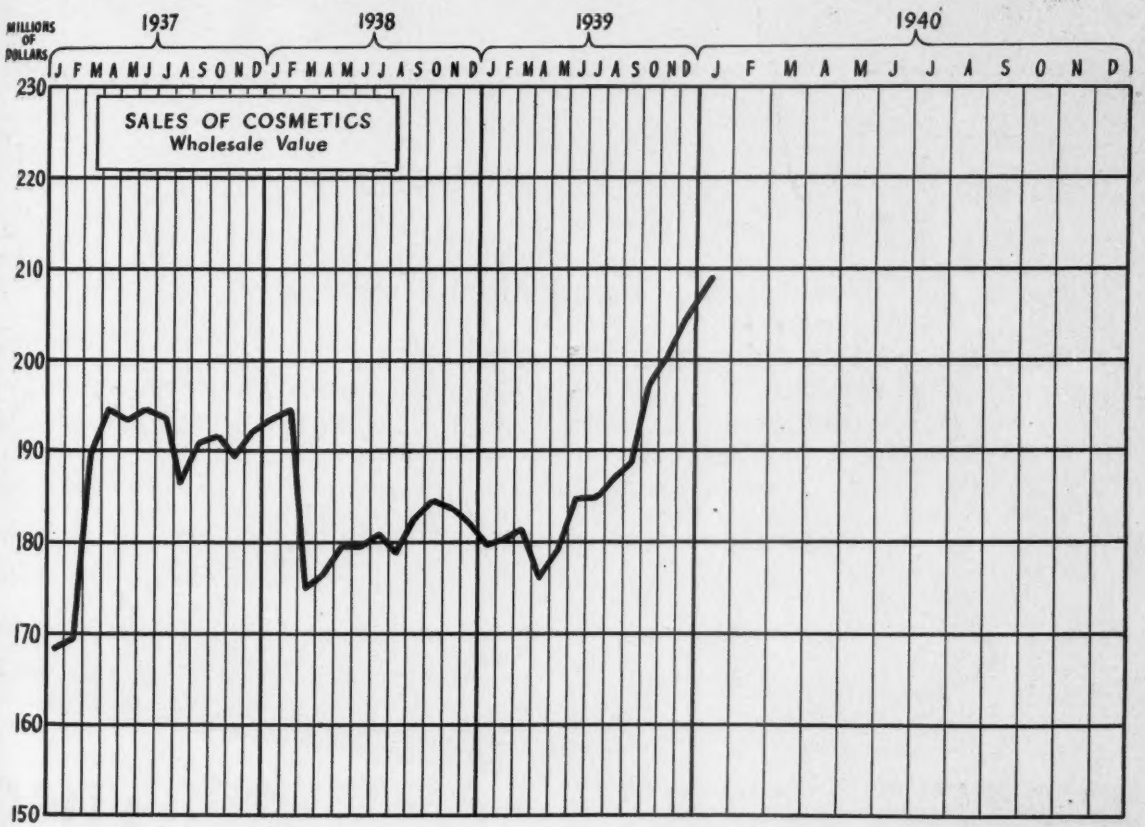
MERCHANDISING NEWS and PACKAGING NOTES

THE COSMETIC TREND: An unusually early Easter will make for a double header spring season with probable high points during the week preceding Easter and another near the middle of April at the arrival of the warm weather. Buyers expect large Easter gift sales but no substantial increases for the rest of the season. Stocks are held to an approximate 6% above last year's levels but assortments are watched more closely than ever. Sales offers will concentrate on below medium sizes (not midgets however) because of their holding best promise for building volume later in the season. The big sizes have slumped somewhat but advertised quality generally stands up better than the rest. The weather is more of an influence than ever. It cut sales heavily in the Southern and Northern Areas, leaving New York comparatively undisturbed which, however, had a few bad days in the second half of February. New York has recovered somewhat and appears to be moving near the top in proportional sales increases above the 1939 late winter season.


MILLIONS OF DOLLARS
1937
1938
1939
1940
J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D J F M A M J J A S O N D
230
220
210
200
190
180
170
160
150
SALES OF COSMETICS
Wholesale Value

The wholesale value of toilet preparations sold in the twelve month period ended January 1940 was equal to $209,040,000, an increase of 2.2 per cent. over the $204,495,000 sold in the year ended December 1939, and 16.2 per cent. greater than the $179,852,000 sold in the twelve months ended January 1939.

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OWENS-ILLINOIS

Complete Packaging Service

GLASS CONTAINERS — CLOSURES — SHIPPING CARTONS

Southern resorts started off with a good demand for travel and resort cosmetics. Although outdoor cosmetics are becoming increasingly all year round articles there is a noticeable tendency of using them for special promotions. The new labels help, especially where they tie up with new advertising claims.

Fancy containers and dressing table sets retain their attraction for the consumer and sell well at almost all prices, with the drug stores handling most of the dollar business but less of the higher price ranges. Drug stores claim that selling these multiple units educates the consumer in the use of a greater variety of cosmetics and perfumes and, therefore, deserves their support. Opinion at the other hand continues to differ on the value of the special manufacturers' deals. Windows, containing a large selection of these deals seem to find plenty of attention and are seen more frequently.

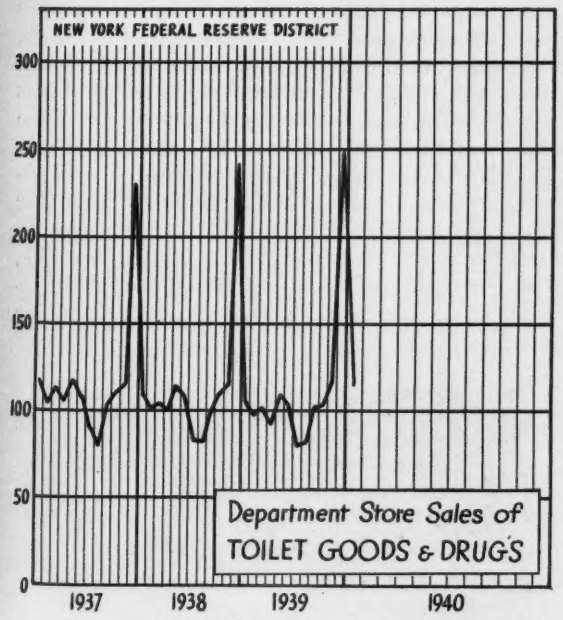
The trend in make-up appears toward a truly vivid accent—not orange, not red-red, but a rich, sparkling red, which in spite of its intensity threatens to take the spotlight in make-up this summer. However, the make-up trend appears to be very much more versatile than it has been for some time. Customers select shades with an eye to the color of costume and accessories. One needn't wear a particular shade to be "fashionable." Fashion colors take on an interesting range from the perennial navy blue, through the entire range of blues; beige, natural and browns showing great promise for Spring; grays, pink and rose tones; greens, and of course, black and white. Consequently cosmetic colors take on a range from the delicate pink shades (much more intense than those of last spring); through the red-red shades which have been popular for some time and continue to hold their ground; to the blue-reds (not those intense blues of a few seasons ago), but lovely reds with just a trace of blue barely perceptible, for the blue range of costume colors; the yellow-reds which are good for the grays and yellows found in Spring fashions.

Perfumes in lighter fragrances will be favored as is usually the case in the summer. Colognes will be stronger than ever and while there is a fashion for old-fashioned scents, it is not likely to last long enough to make buyers feel that they should back it heavily. Novelty perfume and cologne packages are still in favor in the popular-price range. In the higher price brackets, luxuriousness in odor and package seems to be the keynote.

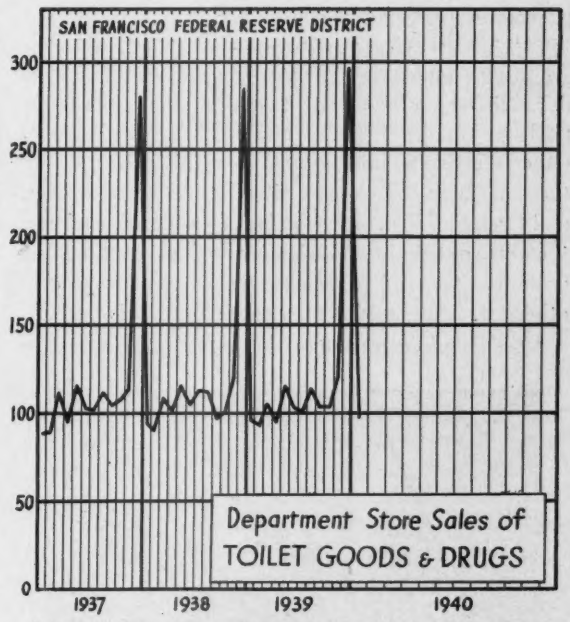
Hats which showed some signs of becoming staid are again taking on eccentric shapes and extreme sizes. Angles are varied, some cling to the back of the head, some incline over one eye, but all show enough hair to make hair-grooming important and hair preparations will play a significant part.

Druggists continue their interest in hair dyes. The demand, however, remains largely experimental and probably will be so, excepting such stores which have handled hair dyes all along and hope now to sell more since the new label regulations have removed part at least of the objections against their more general sale.

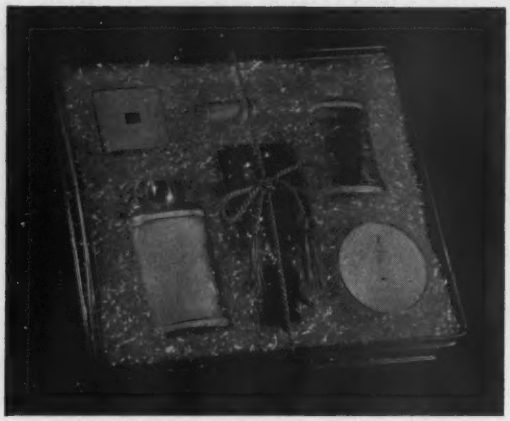
Most unusual and interesting street and beach shoe styles will make foot-grooming extremely important this summer.



Retail sales of toilet articles and drugs by department stores in the New York Federal Reserve District were 10.1 per cent. greater in January 1940 than in the same month of 1939. This corresponds to unadjusted index numbers of 115.2 for January 1940, 248.2 for December 1939, and 104.6 for January 1939.



Sales of toilet articles and drug sundries by department stores in Los Angeles for January 1940 were one per cent. less, were unchanged in San Francisco, were 9 per cent. greater in the stores of the Pacific Northwest, and averaged one per cent. greater for the whole San Francisco Federal Reserve District than in January 1939. Corresponding unadjusted index numbers for the whole district were 97.8 for January 1940, 296.7 for December 1939, and 96.8 for January 1939.



BEST PACKAGES: Each year at this time we report on the packages of this industry which received awards in the Wolf Award Contest held in connection with the annual Packaging Exposition as well as on those packages, entered in the contest which seem to us meritorious, although they do not appear among the prize winners.

The drug and cosmetic industry this year emerged with three first prizes. The Imra depilatory tube and carton of Parfums Chevalier Garde, Inc., was awarded first prize for the most effective use of typography and lettering. Sharp & Dohme, Inc., was awarded first prize for the most effective redesign package for its Lip Salve counter display; while Parfums Charbert's Luxury Set container won first prize for the most effective package employing a secondary use.

This industry was strongly represented in the redesign group with noteworthy line entries by Daggett & Ramsdell and Denney & Denney, to say nothing of the single package jobs by Wildroot and Bellin's Wonderstoen. Other effective families entered from this industry were those of Sharp & Dohme, United Drug vitamin family, and Lucretia Allen. The London House brush package, the Margaret Brainard Capsulcream package, the Mezquite package, and the Maria Danica set package were other especially praiseworthy entries from this field.

All of the packages entered in this competition will be on display at the Tenth Packaging Exposition, at the Hotel Astor, New York, March 26-29. The complete program for this conference appeared in these pages last month.

PACKAGING INSTITUTE: The semi-annual dinner meeting of the Packaging Institute will be held on Tuesday, March 26, 1940, at the Hotel Astor, New York, at 6.30 P. M. President William M. Bristol has appointed as committee on arrangements, Harold M. Bowman, Unit Packages, Inc., chairman; Morehead Patterson, American Machine & Foundry Co., and Frank K. Greenwald, National Starch Products, Inc.

A special meeting to discuss problems of the packaging machinery industry will be held by the members of the Machinery Division on Monday, March 25th, beginning at 2 P. M., and continuing through dinner. Among subjects to be considered are patent problems and legislation, with a report by the patents committee which is headed by H. H. Leonard, Consolidated Packaging Machinery Corp. The committee on arrangements consists of G. Prescott Fuller, Dexter Folder Co.; Carl E. Schaeffer, Stokes & Smith Co., and Bryant W. Langston, Samuel M. Langston Co. Carl H. Lambelet, New Jersey Machine Corp., is president of the Machinery division, as well as vice president of the Packaging Institute.

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1940 TOP AWARD

CLOSURE GROUP

Kimble Glass Vials, equipped with the patented closure of the Owens Staple-Tied Brush Company, again become an All-American Winner for 1940!

Kimble Vials were selected to perform the function of tooth-brush package because of their perfect visibility, their strength, and their sanitary, scratch-proof qualities.

TOP AWARD

FAMILY GROUP

Selected for their modern lines, their uniformity, their seamless beauty, Kimble Vials are used as the unit containers for the unusually distinctive line of MARY CHESS Cosmetics and Toiletries.

The Vials shown here are *measures* as well as packages. Each vial contains just enough Roman Bath Oil for one application.

© 1940, KIMBLE GLASS CO.

• • • *The Visible Guarantee of Invisible Quality* • • •

KIMBLE GLASS COMPANY . . . . VINELAND, N. J.

IF YOU EXPECT FOLKS TO USE MORE HAND SOAP...

WHY ANCHOR HOCKING CAN SERVE YOU BETTER!

At Anchor Hocking, you will find a service organization thoroughly reliable and capable of handling your complete package requirements from container, to closure to carton—including sealing equipment. You deal with one dependable source of supply and benefit by the many advantages this offers.

Backed by years of experience, Anchor Hocking designers, engineers, research and laboratory technicians are ready to assist you with the proper handling, preparation, packing and sealing of your product. All the facilities and services of our organization are yours without obligation. Give Anchor Hocking COMPLETE RESPONSIBILITY and you'll be completely satisfied.

PACK IN GLASS FOR GREATER SALES AND PROFITS!

ANCHOR

-an unbeatable

...MAKE YOUR PACKAGE MORE ATTRACTIVE ...MORE CONVENIENT

Here is the hand soap package recommended by Anchor Hocking—a straight-sided glass container with a smart . . practical Anchor Amerseal Cap.

● Volume sales are just as important for hand soap profits as they are with hundreds of other items sold to the consumer. When your hand soap is hidden in garages . . . buried in cellars . . . or lost in dark cupboards, you can't expect volume and fast turnover. But, dress up your product in this attractive glass package, add a dash of modern merchandising, and you'll find sales increasing—you'll find it handy, being used more in thousands of kitchens and bathrooms.

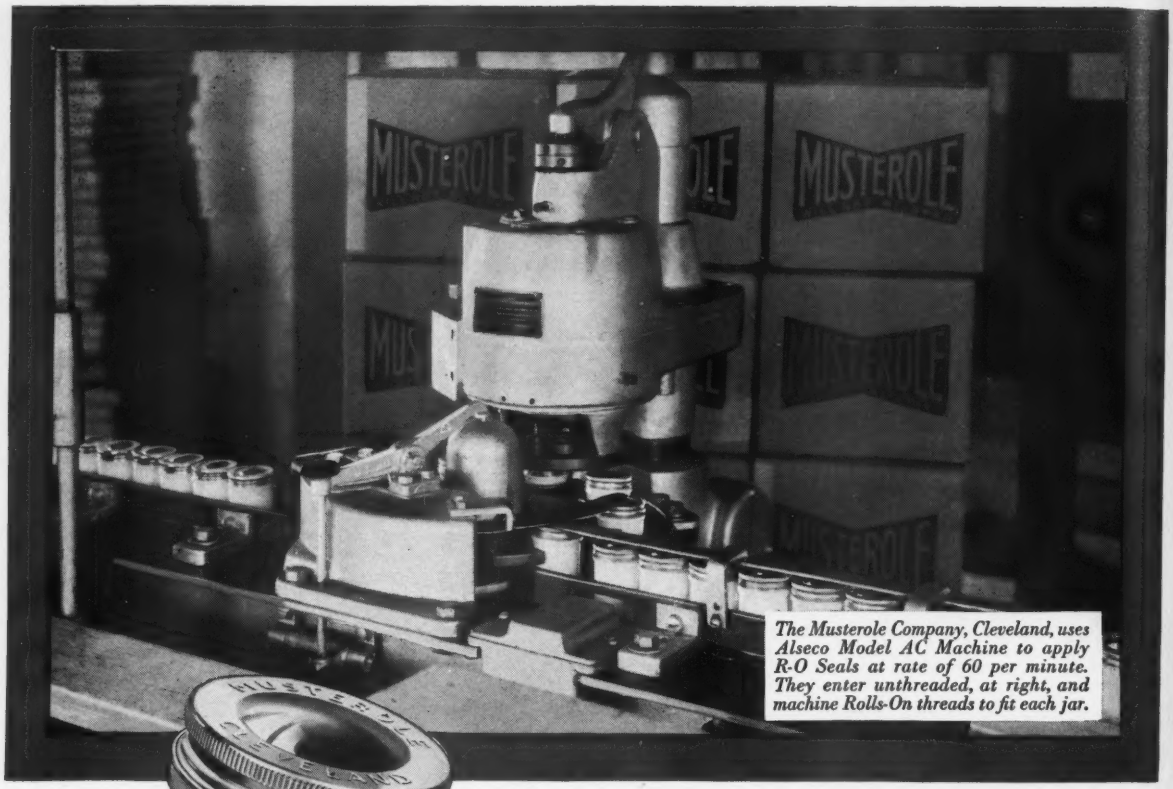
What are the practical and merchandising advantages of Glass? That's easy. With the Glass package, there's . . . no rust or corrosion . . . no drying out with the efficient Anchor Amerseal Cap—a convenient cap that may be easily removed and resealed with a simple quarter-turn. As to merchandising, well, Glass offers the highest possible "eye appeal." And with Glass, your hand soap may be distinctively colored for quick identification.

Yes, you can use this sales-getting, Anchor Hocking Glass Package to build up your hand soap business—take it from the "hidden" to "handy" class—from competitive, slow-moving to quick, profitable turnover.

Anchor Hocking offers you its complete facilities. Experts on every phase of packaging—designers, research technicians and engineers are ready to assist you with the entire packaging problem—from container, to closure to carton. We've a definite merchandising story for hand soap manufacturers. How about a few minutes of your time to tell it? No obligation, of course.

ANCHOR HOCKING GLASS CORPORATION
Lancaster, Ohio
Closure Division:
ANCHOR CAP & CLOSURE CORPORATION
Long Island City, N. Y. and Toronto, Canada

-Hocking
bl combination



The Musterole Company, Cleveland, uses Alseco Model AC Machine to apply R-O Seals at rate of 60 per minute. They enter unthreaded, at right, and machine Rolls-On threads to fit each jar.

WHY MUSTEROLE IS R-O SEALED

Musterole uses R-O Seals for two reasons: They seal the product most securely. And the sealing operation is trouble-free. You can't find two better reascns for using a seal.

Other closures have been tried by Musterole. But none gives as hermetic a seal as the R-O. It tightly confines the volatile ingredients, oil of mustard, camphor and menthol. And keeps the fatty base from getting rancid.

Ever since installed, 12 years ago, the Alseco Sealing machines have worked smoothly and dependably. Never a serious breakdown. Never a day lost for major repairs. Peak production goes through routinely.

Not the cheapest, not the swankiest, but the soundest seal for drug and cosmetic products. That's the Alseco R-O!

AT YOUR SERVICE: 26 YEARS OF EXPERIENCE BUILDING QUALITY SEALS AND SEALING MACHINES TO FIT THE NEEDS OF THE USER.

TAILOR — MADE
Alseco Seals
ALSECO SEALS
Trade Mark Reg U. S. Pat. Off.

FOR SAMPLES AND PRICES OF ALSECO SEALS, WRITE ALUMINUM SEAL COMPANY, 1323 THIRD AVE., NEW KENSINGTON, PENNA.

BEST 5 & 10 PACKAGES: Representatives of this industry won four out of ten of the awards offered in the 7th annual "5 & 10" Packaging Contest sponsored by the Syndicate Store Merchandiser. First prize went to Luxor for its cream jars, sixth prize to Jergens for its sun tan cream bottle, eighth place to Fort Orange Chemical for its De Luxe nail polish, and ninth place to Winx for its family line of cosmetics.

SQUIBB PACKAGING: Squibb makes packaging news this month with two innovations, one in tin and one in glass. The first is a break for the consumer in convenience and saving in wear and tear on fingernails, while the second is a break for Squibb, the retailer's shelves and the consumer's medicine cabinet, with a saving in freight rates.

First, as to the tin, Squibb says, "The principle of the lever and fulcrum has found its way into modern package design and has been adopted by E. R. Squibb and Sons for their tin boxes of Aspirin 12's and 24's, as well as for Magnesia Wafers, Sodium Bicarbonate, Epsom Salt and other similar preparations.

"At each of the corners of the new tins, there is a slight indentation which acts as a fulcrum. By pressing or pinching one corner, the opposite corner pops up and the tin is opened. Directions are printed on each tin. For those conservative individuals, however, who insist on doing things the hard way, the new tins still can be opened as before, by prying up the cover."

The bottle news is that Squibb is adopting a new light-weight bottle, made of thinner yet harder glass for Milk of Magnesia, Cod Liver Oil and Mineral Oil. The new bottle is shorter by nearly an inch as well as lighter in weight. The consumer, the dealer and the manufacturer all benefit from the new bottles. The consumer finds that they are more convenient to handle and take up less space in his always overcrowded home medicine cabinet. The dealer finds they break less easily, that they give him more room on his shelves and counter, and that they have a more attractive—a more modern—appearance. The manufacturer finds they reduce breakage and shipping costs.

ADVERTISING'S COST: One of the finest statements of the case for national advertising we have ever seen has been presented by guess who? None other than Paul Hollister, executive vice-president of R. H. Macy & Co. The title of his story is "Why Consumer Gains Profit from His Part of Advertising's Cost. It was a talk given by Mr. Hollister at Williams College and subsequently reprinted in the February 23 and March 1 issues of "Printers' Ink." We cannot recommend too highly that you secure a copy of this talk and read it in its entirety, since space prohibits us from quoting more than just a small portion—that dealing most specifically with advertising and selling costs of cosmetics.

"We look at those 'spreads' (those between manufacturing and selling costs) and jump to conclusions. Jump, nay, we leap—all spraddled out. 'If' we cry, 'the cost of the ingredients is so low to the price we pay, why cannot we buy the ingredients—which are the only real things in the article anyway—and save money? Why should we pay for all the intermediate commotion between those ingredients and ourselves?' "

"Now let's look at our actual saving in a fair instance, and let's take an example of an article in which advertising plays a relatively costly part—so as to offer ourselves the inducement of a sizable saving:

"Let's choose a cosmetic. Let's say that its ingredient cost is 7 cents, and its container cost is 5 cents; that it stands—before labor or any other overhead costs—12 cents. We know its retail price is 75 cents. The druggist who sold it to us probably paid 45 cents for it. So out of the differential of 32 cents (between 12 and 45 cents) went 27.5 per cent. for advertising, or 8.8 cents.

72% of New Orleans Housewives* Use Cosmetics Made by Scovill Customers

*Estimated from a reasonable sampling of a representative group

On Saturday there's one sure place to find Mrs. Typical Housewife. That's in a super-market, where she is buying her weekend groceries.

So our investigators went to the largest super-market in New Orleans, interviewed dozens of housewives, and found that 72% of them use cosmetics made by firms that have put one or more of the items in their line into Scovill-made containers.

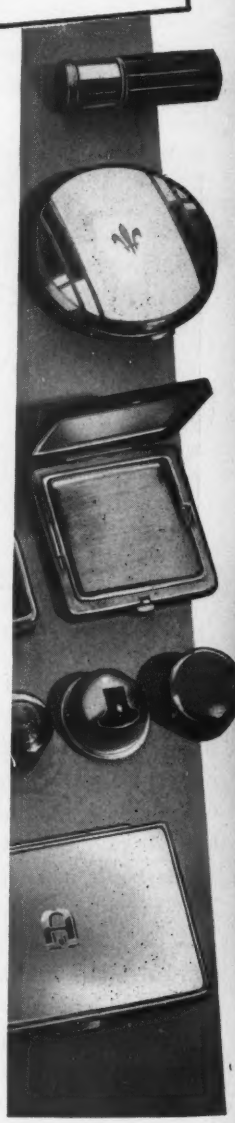
Why Leading Cosmetic Firms Come To Scovill

There are good reasons why the buying practices of cosmetic firms have established the leadership of Scovill containers and closures, as shown in many surveys of stores, colleges, offices, etc.

These manufacturers have found that Scovill pioneers many a development which adds to the sales appeal of their product: such as an economical process for multi-color printing on metal, "Indurite" finish—and No-Kap closures.

They have also found Scovill's stylists and engineers expert at turning out containers at low cost — and at perfecting for practical production, a customer's idea, blueprint or model.

Whatever your type of problem, or if you wish to see the latest containers made by Scovill for famous firms, get in touch with the nearest office listed below.



Scovill
MANUFACTURING COMPANY
WATERBURY, CONN.

Drug and Cosmetic Container Division
69 MILL STREET, WATERBURY, CONN.

Boston, Providence, New York, Philadelphia, Syracuse, Pittsburgh, Chicago, Cincinnati, San Francisco, Los Angeles. IN CANADA: 334 King Street, East, Toronto, Ontario

REVLON

Revlon recently introduced two preparations—Pearl Hand Lotion to be used by day, and Hand Massage Cream by night. The two products are packaged together with a pair of night mittens as a "Clock 'Round" hand kit that retails for the price of the two items alone.

REVLON

SCHIAPARELLI

Schiaparelli's newest perfume is "Sleeping." The four-ounce flacon is in Baccarat crystal, and the stopper is the flame and is flame color. The box is in the form of a cone-shaped snuffer with a handle in "Sleeping Blue" and gold. This new blue which the designer featured in her recent collection, is bright and luminous.

SCHIAPARELLI

KERKOFF, LTD.

Kerkoff, Ltd. is introducing a new Djer-Kiss combination. A fluffy, refillable sachet pillow covered with a charming lace top, nestles close to a bottle of Djer-Kiss sachet under a transparent cover.

KERKOFF, LTD.

FRANCES DENNEY

Frances Denney has ensembled "Watermelon" lipstick, rouge—cake and creme, powder and foundation lotion in an amusing box in the shape of a piece of Watermelon. Frances Denney's newest make-up shade. "Knockout Red" comes packaged in a box which is in the shape of a bell at the ringside. The top is gold and the side is red and white. Inside is a lipstick in a navy blue case, creme rouge, eye shadow, and a sample bottle of "Under-Tone."

DENNEY & DENNEY

LA CROSS

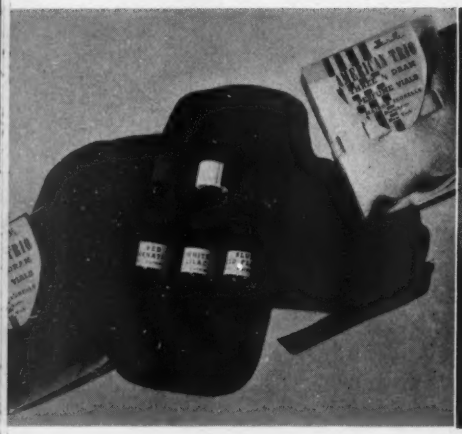
La Cross nail polishes dress up for Spring in a new bottle which is a taller and more gracefully sculptured one than its predecessor, its glass surface ringed about by a series of delicate indentations from base to top. The La Cross label encircles it just above the middle and it is topped by a ivory-tinted cap.

LA CROSS

BABS CREATIONS

Two graceful hands hold a glass bottle containing four drams of "Forever Yours" perfume. A small golden chain hangs suspended from the heart. Tiny lace cuffs accentuate the daintiness of the hands. Over all, is a glass dome resting on a metal base. Distributed by Babs Creactions, Inc.

BABS CREATIONS

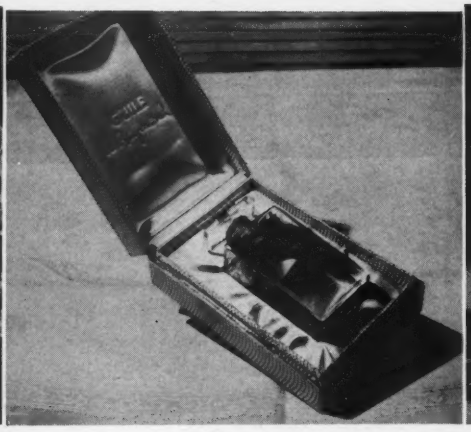


JEURELLE

DOROTHY GRAY

ODORO

P. S. WILLINGMYRE



PARFUMERIE DE RAYMOND

YARD

DAGGETT & RAMSDELL

HOUBIGANT

ROGER & GA

VAC PRODUCTS CO.

CONTINENTAL RESEARCH CORP.

KAROFF

JEURELLE

Jeurelle's "American Trio" is a tiny red, white and blue suede case containing a trio of diminutive red, white and blue capped vials of floral fragrances. Here in a tiny purse-size kit are three totally different scents to be worn with different costumes or to suit a changing mood.

DOROTHY GRAY

To simplify make-up matching problems this Spring, Dorothy Gray has styled an ensemble called "Cosmetic Color Cue." This set includes a full-sized lipstick, matching or harmonizing nail polish, and Elation face powder in a related shade.

ODORONO

Odorono Cream takes a bow in its new smartly designed jar. The moulded top is pink and white, and the jar comes in a gray-and-white carton. The cream itself is the same in consistency, with the bouquet odor slightly more pronounced.

VAC PRODUCTS CO.

Vac Products Co. is introducing a new gadget called "Vac" for use in cleansing and massaging the skin in conjunction with creams. The slender end is covered by a removable cap of rubber, studded with rubber bristles. A vacuum is caused by compressing the rubber with the fingertips, placing the slender end in contact with the skin surface and releasing the finger pressure.

LEHN & FINK

Hinds Honey & Almond Cream is introducing a sister product called Hinds Deodorant Cream. It is described as a soothing, vanishing type of cream.

P. S. WILLINGMYRE

The dispensing of quality perfumes in small portions at 10 cents per vial has proven a popular idea for P. S. Willingmyre of Merchantville, N. J. Packaged in dainty Kimble glass vials with leak-proof caps, these perfume cards are available in many odors, rebottled from the original bottles by the Willingmyre Co., independent of the respective large perfumes from whom these odors are obtained.

PARFUMERIE DE RAYMOND

Parfumerie de Raymond presents its new perfume, Guile de Raymond. This is the perfume which was named as a result of a nationwide salesgirls' contest.

YARDLEY

Yardley has bottled English Lavender in a miniature decanter—an exact copy of the larger size. The decanter has a firm, broad base with an easy-to-grasp stem neck.

CONTINENTAL RESEARCH

The Continental Research Corp. offers "Twenty Daturos," medicinal cigarettes, for the relief of certain local discomforts only, caused by hay fever, congestion due to colds.

MARTON FRERES

Vials of Marton Freres' bath oil make up the bars of the cage in which the little soap bird is caught. The package consists of six vials each filled with bath oil in pine, lemon, jasmin, lavender, herbs, or rose, or cologne in five different odors: old fashioned, lilac, gardenia, lily of the valley, bouquet.

DAGGETT & RAMSDELL

"Beauty is as Beauty Does" is the motto decorating the Daggett & Ramsdell kit which contains cleansing and foundation cream, skin lotion, hand lotion and face powder, all in the new bottles and jars.

HOUBIGANT

Houbigant introduces a fragrant bit of perfume luxury for women to carry in the purse, with a choice of six perfumes in a little leakproof flacon which fits snugly in a leather kit that lessens the danger of breakage and saves other items in the purse from scratches.

ROGER & GALLET

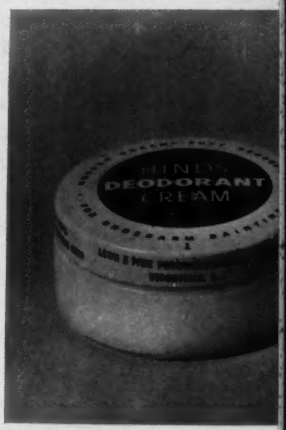
Roger & Gallet's Blue Carnation perfume is packaged in a handsome bottle which rests in a blue and gold base. The cover of the box is beautifully decorated with raised carnations of blue and pink.

KAROFF

Karoff's "Perfume of the Hour" package takes the form of an old-fashioned hour glass in a brass stand. It holds two fragrances "Morning Mist" and "Evening Mood." The package may stand on either end thus enabling the user to get at each perfume.

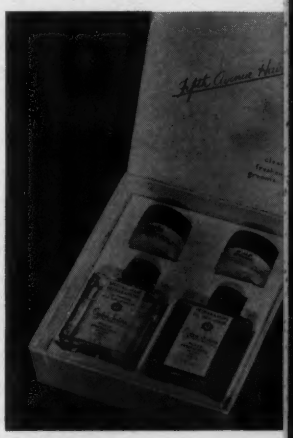
OGILVIE SISTERS

Ogilvie Sisters have launched an introductory package called "The Fifth Avenue Hair Kit." This kit, a smartly designed box in peach and blue, contains four salon preparations.



LEHN & FINK

MARTON FRERES



OGILVIE SISTERS

"This left, of the 32 cents, 23.2 cents to pay for the cosmetic-maker's laboratory, his chemists, his testing apparatus, his machinery, his labor, his salesmen, his light and heat and insurance and his buying and shipping costs, not to mention his interest and depreciation and taxes. He has an article that stands in ingredient costs and container costs alone at 12 cents. It stands him a total before advertising but including his profit, if any, at 23.2 cents.

"He's in New York, and you're in Williamstown, and you want it. You want it now, to put on your face before you go to bed, and you expect the druggist to have it in stock, and to send it right up. It costs the retailer about 30 cents (including his meager profit to make sure it's there and to get it to you), and it costs the manufacturer 23.2 cents to mix it and get it to your druggist. Maybe the manufacturer can do his job for 23.2 cents and make a profit. He can only make a profit if there are an awful lot of girls at home like you, who want precisely what they want precisely when they want it. That's what the 8.8 cents for advertising tried to assure him.

"Maybe you can buy and assemble yourself in Williamstown, the ingredients and container for only 12 cents, and mix them up and cork them as well as the maker does—and save some part or all of the spread of 63 cents between 12 cents and the retail price of 75 cents. But if you're aiming only to save the advertising cost—granted *relatively* high—of 8.8 cents and are willing to pay 64.2 cents for this 12-cents' worth of ingredients and container, you will presently find your druggist out of stock of your pet cosmetic because he 'isn't getting many calls for it.'

"We're now pretty close to the basic service performed by American advertising.

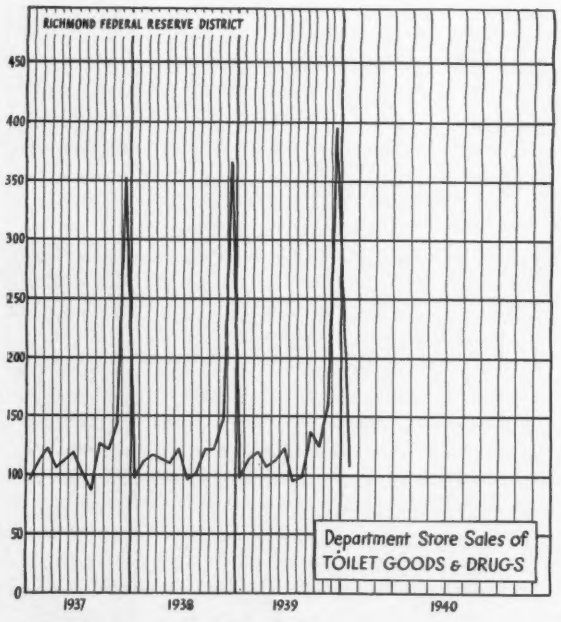
"*Advertising is nothing in the world but multiple communication about goods for sale.*

"It is not generally recognized that the advertisers of America who lay out wo billions a year are not doing so for any reason except that they believe advertising is the least expensive way to communicate to the consuming public the qualities and whereabouts of their goods.

"They know that unless the public pays for this communication in the retail price of goods and services, they cannot afford to communicate.

"They know the public is most deeply interested in paying as low a price as possible for goods, for information about goods, and for transportation of goods.

"The advertiser, therefore, looks for the cheapest means of telling his story to the largest number of people."



Sales of toilet articles and preparations by department stores in Baltimore in January were 13 per cent. greater, in Washington were 6 per cent. greater, and averaged 9 per cent. greater for the whole Richmond Federal Reserve District than in January 1939. Corresponding unadjusted index numbers for the whole district were 107.8 for January 1940, 395.3 for December 1939, and 98.9 for January 1939.

PERFUME PROGRESS: The St. George Hotel, Brooklyn, reports that women users of its swimming pool may now regale themselves with perfumed showers, while two Swiss inventors report from Berne, Switzerland, that they have devised a "smell" track to supplement the motion pictures sound track.

In discussing this development of the "odorated talking picture" the learned N. Y. Herald-Tribune remarks, that, "before Hollywood starts suffusing the nasal passages of its admiring and trusting public with a colossal galaxy of incenses, odors, aromas and perfumes, it will do well to pause and consider. The allergies of man are as personalized as they are many; that which is autumnal fragrance to one picturegoer may be another's hay fever."

DIAMOND DUST FOR FINGER TIPS: According to the Durlin Corp. it is now possible to "finish off your nail enamel with a new touch of glamor; to soften the color tone and give a faint touch of pearly effect which is amplified in the sun and in artificial light." At the same time, it is claimed that this finish will protect the nail enamel and increase the wear.

Durlin modestly claims that this is "a new development in nail enamel which is meeting with much favor. It is a top coat of pearl essence which is applied after the last coat of enamel has thoroughly dried. It gives an iridescent effect, is smart, and looks like an excellent addition to the nail enamel line."

ADMINISTRATIVE PROBLEMS

ENFORCEMENT CHIEF CAMPBELL, OF THE FOOD AND DRUG ADMINISTRATION, believes that the enormous increase in the use of vitamins in recent years is a fad. But fad or not, Mr. Campbell has asked Congress for $28,000 additional with which to inspect vitamin preparations to make certain that they are what they are supposed to be. He does not say what he will do about the $28,000 after the fad is over, but no doubt he feels that once the money is voted for a year, it will be easy to have it voted for another year. Perhaps he feels that it is necessary to kick some group of products around to obtain an increase of this sort, but once he has it he will not have to lash out so strongly at vitamin preparations. Or perhaps if the fad does wane, he can think of something else to kick around.

Mr. Campbell's statement to the subcommittee of the House of Representatives is quite something. We quote:

"The discovery during the past decades of the nutritional and public-health importance of the various vitamins has opened up a fertile field for exploitation of the consumer. The public has undoubtedly acquired an exaggerated idea about the vitamin deficiencies of the ordinary diet and as a result has become a rather ready prey to products carrying false and misleading label claims for value as vitamin bearing products. Vitamin preparations are found both in the strictly drug field and in the food field. There is a class of products containing vitamins lying roughly halfway between the food and drug fields. The Food, Drug, and Cosmetic Act authorizes the Secretary of Agriculture to establish regulations for the control of these special dietary products.

"Not only is there a very large group of vitamin preparations in the proprietary class requiring far more extended attention than has heretofore been given, but there is also a large traffic in standard and recognized vitamin-bearing products like cod liver oil for which there is an enormous and legitimate demand for infant feeding as well as for poultry and stock feeding purposes. Practically all cod liver oil is imported. The demand is constantly growing and the temptation to use cheaper and less valuable oils from the vitamin standpoint is constant. Continuous and extensive sampling of importations and domestic shipments of cod liver oil and of other vitamin preparations should be a routine activity in the Food and Drug Administration. Since vitamin assays are laborious, time-consuming, and expensive, the amount that has heretofore been assigned for this purpose, namely $87,000, had been entirely inadequate for this purpose. With an increase of $28,000 a far more effective control in the interest of public health and nutrition will be possible."

In answer to questions by a member of the subcommittee, Mr. Campbell made the following statements:

"It (increase in vitamin products) is the result of a fad."

"Recently a drug trade paper stated this: taken as a group, vitamin products now stand in third place from point of sale in the drug stores. The first place goes to laxatives, the second to cough and cold remedies, and the third to vitamins. (This information apparently was obtained by Mr. Campbell from an article "The Vitamin Market," which appeared in the April, 1935 issue of The Drug and Cosmetic Industry.)

"We are not doing all the things we should do in that (vitamin) field and we are not asking for any more increase in the appropriation than the $28,000 here indicated, because we cannot accommodate ourselves to a rapid increase in the development of facilities for this work."

INTERESTING ALSO IN THE MATTER OF VITAMINS is the advertising now being used to sell Kellogg's "Pep." The headline reads, "All over America Physicians Urge It; Go to the *Grocer* for your Vitamins." The advertising then says that doctors have advised patients as follows: "Don't be confused about vitamins. These amazing elements in our diet are vitally important to everyone's well-being. But, for

normal people, the place to get them is in *good everyday foods*."

Furthermore the advertising says that the grocer is "the world's greatest vitamin merchant—for vitamins are *food*, not drugs. They are natural constituents of scores of good things to eat that the grocer sells every day. He packs them in every market basket—though he never thinks of charging extra for them."

Thus Kellogg seeks to sell its prooduct by the old well-known method of attacking another industry or trade much after the method of the famous "Reach for a Lucky instead of a Sweet," or the not so well publicized "Cosmetic Skin" copy of Lever Brothers. In the present instance Kellogg picks on the drug manufacturers, wholesalers, and retailers, probably feeling that the druggists can do nothing about it, and also feeling that the retail grocers will love Kellogg for it. However, Kellogg had better keep its eye upon the activity of the Food and Drug Administration regarding vitamins, for the FDA is apt to take some steps toward restricting the incorporation of these products in foods to prevent over consumption of vitamins which might be found harmful. Also they should not overlook the possibility of the Federal Trade Commission questioning some of the statements regarding what the medical profession tells its patients about where to obtain vitamins.

AND SPEAKING OF THIS MATTER of the sale of vitamins through grocers, the New Hampshire Board of Health recently informed a wholesale grocer of that state: "Essentially these products are to be regarded as therapeutic agents—drugs for the amelioration of some subnormal condition of health—rather than as foods in the ordinary sense of the term."

WE NOTE THAT URUGUAY enacted a law in January which is to create a retirement fund for barber and beauty shop operators by levying additional taxes on razors, hair clippers, razor strops, nail clippers, eyebrow tweezers and paste for honing strops. Think of that one happening in this country! Only we would have to do it bigger and better and would probably tax cosmetics, hair dyes, permanent waving machines, permanent waving lotions, hair preparations of all kinds, and what not.

THE QUESTION MUST SOONER OR LATER BE ANSWERED by the Food and Drug Administration as to what size packages of medicinal chemicals, essential oils, and botanical drugs constitute consumer packages. And a different answer must be given for a great many different products. For certainly manufacturers and distributors of these products are not required to put upon the labels of packages for manufacturing and dispensing use all the information that must be put on the packages sold over the counter. For example, a pound of boric acid is hardly a household package. And surely, if products are sold to manufacturers, or to pharmacists or physicians for dispensing purposes, no information should be required on the package other than the name of the product.

IN OUR FEBRUARY ISSUE, FRANCIS CHILSON, who contributes the department known as "Production Forum" waxed enthusiastic about the scientific control of the products of drug manufacturers, making an unjustified and, so far as we can see, totally irrelevant comparison with the prescription department of the drug store.

Mr. Chilson is an independent consulting production engineer who has been writing for us for many years past. Many times he indulges in criticisms of various angles of drug manufacturing and other matters, but always before his criticisms have been well founded and constructive. In this case, however, we do not agree with Mr. Chilson's remarks, nor do we consider them justified from any angle.

ADVICES FROM ENGLAND REGARDING THE COD LIVER OIL situation in that country are to the effect that trawlers are available only in small numbers to produce cod liver oil. The English production of cod liver oil has been conducted on trawlers. The fish are caught and then the livers are taken from the fish and the oil extracted immediately. Refining of the oil is conducted on shore. Because of the war, a very large number of these trawlers have been taken over by the government for the purpose of sweeping enemy mines from the North Sea. This has produced a condition in which the English have been forced to abandon the production of cod liver oil for poultry use almost completely, and they merely hope that they can continue to produce enough medicinal cod liver oil for domestic use.

This means that exports of cod liver oil from England will be completely discontinued at least for the duration of the war. It means further that, if the North Sea situation and the submarine warfare becomes worse, England might have to import some of its oil for medicinal use. Since England had reached a point at which she was producing more cod liver oil than any other single country prior to the war, this means that the outlook for plentiful supplies and lower prices of cod liver oil is none too bright.

R. H. MACY & COMPANY have taken on an additional plant for the manufacture of their private brands. The new plant in Jamaica, N. Y. has 106,000 feet of floor space, while the present Macy plant and warehouse in Long Island City has 1,200,000 feet. Foods, drugs, cosmetics, and mattresses and bed pillows will be produced at the new plant. While Macy's sales of their own brand foods, drugs, and cosmetics might have expanded somewhat due to taking on other retailers as distributors, we also hear that they are now going in for the direct manufacture of many products which were formerly manufactured for them.

THE TOILET GOODS' ASSOCIATION HAS MADE A STUDY of the Cease and Desist Orders issued by the Federal Trade Commission under the Wheeler-Lea Act and has summarized the practices which the Commission forbids. Because these are taken from orders of the Commission, they are binding upon all manufacturers unless upset by court review. Stipulations, on the other hand are binding only upon the company which signs them. We give the summary as issued by the T.G.A.

1. Fictitious Prices.

The Commission has in several cases forbidden the use of false or fictitious prices in advertising. The claim that products may be had at excessive bargain rates when such claim is not in accordance with the facts is forbidden in this line of cases.

2. Manufacturer, Laboratories, Etc.

False representation with respect to the existence of facilities for manufacturing, research, etc. is forbidden in a line of cases. This includes:

Representing to be a manufacturer when such is not the case.

Representing to be an importer when such is not the case.

Representing to operate a factory, laboratory or similar establishment when such is not the case.

Representing to employ chemists or scientists or physicians or other technical experts when such is not the case.

Representing to operate cooperative buying establishment when such is not the case.

In one or two cases the word "laboratory" has been interpreted to mean an organization equipped for analyses, research and control of manufacture.

3. Endorsements, Approvals, Etc.

Representing that products enjoy certain types of endorsement or approval is forbidden. It is forbidden to state or imply that products are approved by the U. S. Government, by any State Government, by the War or Navy Department, or by any Branch or Officer of the Government.

It has also been forbidden to represent or imply that products have been approved by the American Medical Association, when such is not the case.

Statements that products have been endorsed by Scientists or Physicians generally, have been forbidden, but the specific endorsement of a real Scientist or a real Physician may be used when it is truthful.

Statements that the formula of a product is a "Physician's Formula" or Doctor's Formula" have generally been forbidden, but such statements may be used when they can be completely substantiated by the facts in any particular instance.

4. Country Of Origin.

Misrepresenting the country of origin of products has been the subject of a long line of cases. The orders in these cases are very sweeping in character. In general they forbid the use of foreign place names, words in foreign languages, pictorial representations of foreign scenes, or any implication whatever that the goods are of foreign origin when they are in fact compounded or manufactured or even processed in the United States. Some of these orders are qualified by the Commission by granting permission to continue to use foreign representations if it is clearly and conspicuously stated that the products are made, compounded or processed in the United States. The final form of orders forbidding the misrepresenting of place of origin of goods cannot be stated at this time since appeals from several of these orders have been taken and the Courts will finally determine how far the authority of the Commission extends in this respect. The Circuit Court of Appeals entrusted with these cases will probably decide them this year.

5. Lotteries, Premiums, Etc.

The use of lotteries, gift certificates and similar devices to promote sales is forbidden in a long line of Cease and Desist Orders. Lotteries apparently may not be used in any case, but contests, gift certificates and similar devices may apparently be used under certain very severe restrictions. Great care should be used in adopting any such plan of merchandising.

6. Inability To Fill Orders.

One order has been issued forbidding the advertising of the products of others unless the advertiser is able to supply them in "normal quantity" from stock actually on hand. The same order forbids the substituting of other products when Trade Marked or Branded merchandise is requested.

7. Salesmen's Earnings.

In several cases misrepresentation of the earnings of, and exaggerated and untrue offers to, prospective salesmen is forbidden.

8. Cosmetic Claims.

The following is a partial list of statements which may not be made about any type of cosmetic:

Nourish the skin
Feed the skin
Nourish or feed the tissues
Rejuvenate the skin
Renovate the skin
Revitalize the skin or tissues
Re-activate skin or tissues
Accelerate chemical changes in the skin
Build new or replace old tissues
Penetrate the outer layers of the skin
Dissolve fatty tissues
Re-activate glands
Restore glands
Restore youthful contour
Renew elasticity of muscles
Give new vigor to muscles
Cause wrinkles or crow's feet to disappear.
Banish lines, blackheads, whiteheads, enlarged pores, wrinkles or crow's feet.
Erase wrinkles
Overcome blemishes, wrinkles, blackheads, enlarged pores.
Prevent clogging of the pores

ACETYL SALICYLIC ACID U. S. P. and STARCH GRANULATIONS

The standard forms of Monsanto Aspirin provide the physical characteristics which will supply by far the majority of the requirements of the trade. Tablets made with Monsanto starch granulations are unsurpassed in appearance, finish, disintegration and texture of the disintegrated mass. The standard forms are also adaptable to economical use in the manufacture of compound tablets.

Monsanto requests the opportunity of supplying your aspirin requirements. Samples and further information are available on request. MONSANTO CHEMICAL COMPANY, St. Louis, U. S. A. District Offices: New York, Chicago, Boston, Detroit, Charlotte, Birmingham, Los Angeles, San Francisco, Montreal, London.

OTHER MONSANTO MEDICINALS INCLUDE:

Acetanilid U. S. P. · Acetophenetidin U. S. P. · Benzoic Acid U. S. P. · Caffeine U. S. P. · Chloral Hydrate U. S. P. · Chloramine-T U. S. P. · Glycerophosphates · Phenol U. S. P. · Phenolphthalein U. S. P. · Phosphates · Salicylic Acid U. S. P. · Sodium Benzoate U. S. P. · Sodium Salicylate U. S. P. · Sulfanilamide U. S. P.

STANDARD FORMS OF MONSANTO ASPIRIN

ACETYL SALICYLIC ACID U. S. P.
crystals 20 mesh

ACETYL SALICYLIC ACID U. S. P.
crystals 40 mesh

ACETYL SALICYLIC ACID U. S. P.
powder 80 mesh

ACETYL SALICYLIC ACID U. S. P.
10% starch granulation
white 12-50 mesh

ACETYL SALICYLIC ACID U. S. P.
16% starch granulation
white 12-50 mesh

ACETYL SALICYLIC ACID U. S. P.
20% starch granulation
white 12-50 mesh

MONSANTO CHEMICALS

SERVING INDUSTRY . . . WHICH SERVES MANKIND

Remove freckles
Bleach the skin white and keep it so
Withdraw toxins from the skin
Use of the name "Skin Food," or a synonym therefore has been forbidden in several cases.
Representing products as "Non-Allergic" has been forbidden.
Representing cosmetics to be valuable because of the presence therein of Hormones or Gland Extracts has been forbidden on the ground that the Commission considers that these products are "Not absorbed through the skin in therapeutically significant amounts."

9. Medicinal Claims.

Claims that cosmetics possess medicinal effects when such is not the case, or that they possess germicidal properties when such is not the case have been forbidden.

10. Names Of Ingredients.

In several cases naming a product for a single ingredient, for example, "Olive Oil Cream" has been forbidden, unless the product consists entirely of that particular ingredient, or unless all of the ingredients are listed in the order of their predominance by volume.

11. Depilatories.

The following statements have been forbidden with respect to Depilatories:

Delays appearance of new hair
Discourages growth of any hair
Permanently eradicates or permanently removes hair

In some cases it has been forbidden to represent that depilatories are "entirely safe and harmless" but this does not apply to every case and apparently depends upon the nature of the depilatory itself.

12. Dentifrices.

The following statements have been forbidden with respect to Tooth Paste and Tooth Powders:

Fights decay
Removes film
Keeps gums firm and healthy
Assures white and sparkling teeth
Prevents decay
Keeps mouth thoroughly clean and healthy
Assures sound teeth

Other decisions with reference to dentifrices forbid statements that they will remove stains other than ordinary surface stains, or that they will restore brightness to teeth which appear dull because of other than surface stains.

In one case a manufacturer of Tooth Powder was forbidden to state that a powder is more effective than a paste.

13. Eye Lotions.

In cases involving Eyewashes, Eyelotions and the like, it has been forbidden to state that they "strengthen nerves" or "relieve strain."

14. Hair Preparations.

The following statements when applied to preparations for the Hair have been forbidden in a long line of cases:

Removes, cures or remedies dandruff
Ends, cures or stops baldness
Cures alopecia
Gives new life to the hair
Rejuvenates the roots of the hair
Stops or prevents falling hair
Produces or brings about new growth of hair
Revives dormant hair roots
Forces nature to replace hair
Produces or brings about a vital, strong or healthy scalp
Reaches the cause of all hair troubles.

15. Hair Dyes.

With respect to Hair Dyes, a series of cases forbids representing that a substance which actually gives color to the hair "is not a dye," or "does not contain dyes."

Other cases forbid representing that Hair Dyes *restore* the color of grey or discolored hair.

In certain cases the Commission has forbidden statements that the dye is harmless or entirely safe for use. This does not apply in all cases and is apparently determined by the nature of the dye.

16. Eyelash Preparations.

Regarding Eyelash and Eyebrow preparations. The following statements have been forbidden-:

Promotes growth of eyelashes
Grows eyelashes themselves
Makes eyelashes longer, heavier or silkier.
Permanently darkens the eyelashes and eyebrows
Permanently lightens the eyelashes and eyebrows

17. "Indelible".

In *one* case a company was forbidden to advertise that its lipstick or its rouge were "indelible."

18. Nail Preparations.

Manufacturers of N a i l preparations have been ordered to Cease representing that their preparations:

Bring vitality to the nails
Eliminate brittleness or splitting or breaking of the nails
Prevent ingrowing nails

19. Containers.

It is not generally understood that the Commission may proceed in other matters than actual advertising. Cease and Desist Orders however, have been issued in cases where packages were over-sized or where packages were slack filled.

Beauty is more than Skin Deep

While the success of your products is based on packaging, color, merchandising . . . your repeat business goes deeper. Fundamentally, it is what goes into your cosmetics and how they are processed that counts.

Kolmar Laboratories, private label manufacturers, formulate each product of the finest ingredients with tireless research and modern laboratory methods. Kolmar protects your reputation with Products Liability Insurance.

Kolmar Laboratories make spot shipments direct to your customers. We are equipped to handle all details, to relieve you of costly shipping and billing expense.

Kolmar laboratories

MILWAUKEE • NEWARK

Kolmar Representatives:

Mr. M. C. Boyd, Quinby Building, Newark, N. J.
Mr. Douglas Haggerty, 122 E. 42nd St., New York City
Mr. Warren Curry, 3950 Club Drive, Atlanta, Ga.
Mr. Norman Kole, 980 Merchandise Mart, Chicago, Ill.
Mr. R. F. G. Byington, 155 N. Vermont Ave., Los Angeles, Cal.

F.D.A., F.T.C., U.S.P. Activities

Deceptive Packaging

Seizure was reported of the following items which were found to be in violation of the deceptive packaging provision of the new Food, Drug, and Cosmetic Act because their containers were so made, formed or filled as to be misleading: 1104 slack-filled cartons of salicylic acid, the contents of which occupied only a small portion of the capacity of the container; 241 cartons (containing bottles) of a laxative oil, the cartons being too large for the bottle; 54 cartons (containing tubes) of eucalyptus ointment, the cartons were too large for tubes.

Drugs and Devices Seized

Included in the list of seizures reported for last month were various lots of drug products and devices which were removed from the market because they were found to be in violation of the new Food, Drug, and Cosmetic Act. Seizure was made of the following items found not to be sterile: 408 packages of gauze bandages and 398 packages of cotton swabs. Drug items confiscated because they differed from the U.S.P. standards, included: 106 bags of digitalis leaves, 5 boxes of U.S.P. sandalwood oil capsules, and 66 cases (approx. 3960 pounds) of Chinese peppermint oil. There were also seized 74 packages of hog powder, the labeling of which bore false and misleading therapeutic claims, and 43 packages of a preparation for skin diseases which was deceptively packaged and whose labeling bore false and misleading therapeutic claims. Fifty-five infra-red therapeutic lamps, and 19 electric vaporizers were confiscated because the labeling which accompanied them bore false and misleading therapeutic claims.

Criminal Actions Terminated

Actions involving drug products which were based on violations of the old Food and Drugs Act were reported terminated against: Joseph D. Wiener, Dr. Victor R. Marburger, and Charles G. Lane, co-partners, trading as the Neutro-Plasm Foundation, Detroit, Mich., "Neutro-Plasm" sold as a cancer deodorant, the labeling of which bore false and fraudulent therapeutic claims and false and misleading statements, fine $400; George T. Lambert, David Periera and George D. Lambert, trading as Crescent-Kelvan Company, Phila., Pa., pharmaceuticals which fell below their professed standards, the labelings of these products also bore false and fraudulent therapeutic claims, and false and misleading statements. This case also included a violation of the Insecticide Act. A fine of $250 was imposed, which was divided equally between the three individuals; George T. Lambert, David Periera, and George D. Lambert, trading as the Crescent-Kelvan Company, Phila., Pa., "Cal-Co-Cin," an alleged treatment for arthritis, the labeling of which bore false and fraudulent therapeutic claims and false and misleading statements. This product was also found to be in violation of the new Food, Drug, and Cosmetic Act since it was dangerous to health when used in the dosage or with the frequency recommended in the labelling thereof, fine $250, which was divided equally between the three individuals; Sexton Drug Store, Springfield, Mass., below-standard elixir iron, quinine and strychnine.

Interim Revision for Scarlet Fever Streptococcus Toxin

An important modification in the manufacture of Scarlet Fever Streptococcus Toxin has been developed by the Scarlet Fever Committee, Inc., and this has received the approval of the National Institute of Health. The introduction of a limited amount of peptone and the exclusion of meat extractive is the important change.

The U. S. P. Sub-Committee on Biological Products recommended that the Pharmacopoeia conform to this accepted procedure, especially since it is said to reduce the toxicity of the product. The following U. S. P. "Interim Revision Announcement" has therefore been approved by the Committee of Revision and Board of Trustees and its release authorized.

August 1, 1940 is fixed for the enforcement of this revised monograph.

The revised test reads as follows:

TOXINUM SCARLATINAE STREPTOCCICUM SCARLET FEVER STREPTOCOCCUS TOXIN

Toxin, Scarlet, Streptococ.—Scarlet Fever Streptococcic Toxin. Scarlet Fever Toxin for Immunization and for the Dick Test.

Scarlet Fever Streptococcus Toxin is a sterile solution *in a medium containing not more than one per cent. of peptone but no meat extractive*, of certain products including a soluble toxin, resulting from the growth in the broth of suitable strains of hemolytic streptococci (*Streptococcus scarletinae*).

Description and physical properties—A transparent liquid having the color of the medium in which it is made *and having a slight odor* which is often altered somewhat by the antiseptic used as a preservative.

The remainder of the U.S.P. XI text, page 410, beginning with the 13th line from the top of the page, starting "No horse blood or other foreign blood shall—" remains unchanged.

Injunction Against U. S. Drug

Judge Symes of the U. S. District Court for the District of Colorado, sitting in Denver in a consent decree issued today, has enjoined Edwin L. Leisenring, trading as U. S. Drug & Sales Company, U. S. Drug Laboratories, and U. S. Drug Company, 1534 Lawrence St., Denver, Colo., and Gordon Leisenring, an individual, from further dissemination of false advertising of drug preparations sold and distributed by them, pending the issuance and disposal of a complaint filed by the Federal Trade Commission in its regular procedure.

A temporary restraining order was issued February 12 upon petition of the Commission, which alleged that the preparations, while advertised as effective, safe and scientific treatments, contained ingredients which, if used under customary and usual conditions, might cause serious and irreparable damage to the health of users.

Delayed Menstruation

The F.T.C. has charged William S. McClymonds, trading as Oxol Laboratories and Western Research Laboratories, Denver, with misrepresentations of "Quinox Capsules."

The respondent allegedly represented the preparation as a cure, remedy and competent treatment for delayed menstruation. The complaint alleges that the representation is untrue and that the preparation is without substantial therapeutic value aside from its effect as an ordinary laxative.

Not Contraceptives

The F.T.C. has charged Dr. Pierre Chemical Co., Chicago, with false advertising of "Dr. Pierre's BORO-PHENO-FORM Vaginal Suppositories" and "Dr. Pierre's BORO-PHENO-FORM Vaginal Creme."

The complaint alleges the respondent has represented that the preparations are competent and effective preventatives of conception; are effective antiseptics and germicides; possess substantial therapeutic agents which heal and soothe irritated tissues and membranes, and that the products have been approved and accepted and are recommended by a substantial number of reputable physicians.

All these representations, the complaint continues, are false and misleading. While the products possess antiseptic ingredients of a low toxicity, they are not competent or effective antiseptics or germicides, and they have not been approved or recommended by any substantial number of reputable physicians.

Hotel ASTOR *New York*
MARCH *26-29, 1940*

TENTH
PACKAGING
EXPOSITION

For more profitable merchandising

THE AMERICAN MANAGEMENT ASSOCIATION

LUSTEROID

rigid cellulose tubes & vials are

Unbreakable
Resilient

LUSTEROID'S unbreakable quality makes it ideal for packaging and sampling purposes. Its resilience is positive protection for whatever contents: drugs, cosmetics, petroleum products, small objects, etc., you entrust to its care. Packing and shipping costs are cut down by the elimination of heavy wadding and padding. Breakage is, of course, non-existent.

LUSTEROID is the *colorful* cellulosic material that houses, in tubes and vials, so many leading products. It is extremely lightweight, and its unbreakability allows of thin-wall construction that could never be achieved safely in other materials. Labelling is an integral part of the manufacture of LUSTEROID containers, which means saving on printing, paper, pasting.

A creative service is available for the solution of your packaging problems.

A note or phone call will bring an immediate reply with samples.

LUSTEROID CONTAINER CO., INC.

Formerly Lusteroid Division of the Sillcocks-Miller Company

12 Parker Avenue, West
SOUTH ORANGE, NEW JERSEY

Alcoholism Cure Cited

The F.T.C. has issued a complaint against George C. and Mina D. Huskins and Howard W. Ellison, trading as Carter Sales Company, Los Angeles.

The respondents are alleged to have represented "Carter's Special Formula," as a cure, remedy or competent treatment for alcoholism and the liquor habit. They are also alleged to have advertised that by its use the desire for alcoholic stimulants will be eradicated, and that the preparation is absolutely harmless and contains no harmful drugs.

The complaint alleges that the representations are exaggerated and misleading; that use of their preparation will not accomplish the results as claimed, and that the product is not absolutely harmless because it may, in some cases, cause skin rashes, dermatitis, and injury to the liver and the intestinal mucosa.

Rheumatism And Obesity Claims

The Chapman Health Products Company, Cleveland, and John W. and Nellie C. Chapman, individually and as officers of the corporation, engaged in the sale "N.A.R. Tablets" and "Faid," otherwise known as "Daintee," are charged with misrepresentations.

"N.A.R. Tablets," recommended as a treatment for rheumatism, neuritis and arthritis, and "Faid," otherwise known as "Daintee," recommended as a treatment for obesity, have been advertised as being safe and effective remedies for the ailments designated.

The complaint charges that "N.A.R. Tablets" is not a cure or remedy for rheumatism, neuritis or arthritis, and does not possess any therapeutic value in the treatment of these ailments except so far as the analgesic properties of the preparation may afford temporary relief.

"Faid," otherwise known as "Daintee," the complaint continues, is represented as a competent, safe and scientific treatment for obesity, and that its use will have no ill effect upon the human body.

The U. S. District Court for the Northern District of Ohio last month enjoined The Chapman Health Products Company, and John W. and Nellie C. Chapman, individually and as officers of the corporation, from further dissemination of false advertisements concerning "Faid," otherwise known as "Daintee." The Commission's bill of complaint alleged that the preparation is composed of desiccated thyroid, sodium biborate, powdered extract phytolacca berries, berberine hydrochloride and apocynoid. Use of this preparation, the bill of complaint charged, might result in injury to the heart muscle and other serious and irreparable injury to health. The defendants waived hearing and consented to the decree being entered forthwith.

Vitamin Preparation Cited

Charged with misrepresentation in the sale of "V-Bev," Purity Products, Inc., Newark, N. J., The Journal of Living Publishing Corporation, New York, and Victor H. Lindlahr, have been served with a complaint. Lindlahr controls the advertising practices of Purity Products, Inc., with respect to "V-Bev," and is editor of "The Journal of Living," published by the New York corporation and used for advertising the Purity company's preparation.

Advertisements disseminated by the respondents in newspapers and periodicals and by radio allegedly represented that "V-Bev" possesses substantial therapeutic value in treating numerous ailments, including loss of sheep, nervousness, poor digestion, tired feeling, lack of energy and run-down condition and that it supplies the necessary amounts of vitamins B_1 and G to persons deficient therein.

The complaint alleges that the preparation is without therapeutic value in the treatment of the ailments listed, and that it is a mixture of ordinary foods and does not supply any vitamin deficiencies.

Reducing Compound

Leland F. Benham, trading as Le Flor Company, Chicago, distributor of a preparation for obesity is charged, by the F.T.C. with misrepresentation.

The medicinal preparation is described as "Le Flor Weight Reduction Tablets" and is sold under the name "Le Flor Method." Prior to August, 1937, the respondent conducted his business under the trade name Dixie Products Company, and subsequent to that time as Le Flor Co.

In advertisements in newspapers and periodicals, the complaint continues, the respondent has represented:

"We do not ask you to believe, we merely ask you to try the Le Flor Method and judge for yourself. You may have become skeptical after trying other highly advertised methods that were not suited to you, but we ask that you do yourself the favor of trying the Le Flor Method with the certain knowledge that if you are not entirely satisfied with the results you obtain, your money will be refunded."

"The usual price is $2.00 per box. As an introductory feature we are offering the LE FLOR method as a six weeks' treatment at the price of 6 boxes for $5.00. If you are skeptical, we offer a one week's supply of 84 tablets (one box) at the astoundingly low price of only $1.00."

Through these advertisements and other representations, the complaint continues, the respondent represents that the treatment and a so-called "deficient element" diet, is a cure or remedy for obesity and a competent and scientific treatment which does not contain any dehydration drugs.

In truth, the complaint continues, the preparation is not a cure or remedy for obesity, and is of no therapeutic value in its treatment. Among other drugs contained in the tablets is phenolphthalein, dehydration drug. The only therapeutic value in the tablets, the complaint alleges, is a laxative or cathartic. The price of $1.00 per box or 6 boxes for $5.00, is alleged to be the regular, customary and usual price at which the tablets are offered for sale by the respondent and not a special, reduced or introductory price.

Injunction Stops Reducer

The U. S. District Court for the Southern District of California has issued a preliminary injunction upon petition of the F.T.C. forbidding Sekov Corporation, and Edwin W. Vokes and Hazel Ruth Vokes, officers of the corporation, and as individuals trading as Sekov Reducing Studios, Hollywood, Calif., from further dissemination of false advertising pending issuance of a complaint by the Commission under its regular procedure and until final disposition thereof.

It was alleged that the preparations advertised and sold as "Sekov Reducer" and as "Sekov," and represented to be safe, competent and scientific treatments for obesity, contain drugs which, if used as prescribed in advertisements of the defendants or under conditions that are customary or usual, might result in serious or irreparable injury to the health of users.

F.T.C. Orders

Toothbrush Origin

The F.T.C. has ordered I. Sekine Company, Inc., of New York and Baltimore, to discontinue misleading representations of toothbrushes.

The respondent company is found to have imported handles and bristles for its brushes and, in the process of preparing the commodity for sale, to have bored holes for the bristles in the handles in the recise location of marks denoting Japanese origin of the handles, thus obliterating the words "Japan" or "Made in Japan" when the bristles were inserted. When the commodity was finally assembled, the findings continue, the sentence, "This brush is made in U. S. A.", was stamped in bold gold letters in a conspicuous place elsewhere on the handles of the brushes.

This practice was misleading, the findings continue, as the toothbrushes were not wholly "Made in U. S. A." It is pointed out that a substantial portion of the buying public has indicated a decided preference for American-made products, including toothbrushes.

The Commission order directs the respondents to cease and desist from using the words, "This brush is made in U.S.A.", or words of similar import, on toothbrushes made from imported handles, or on containers in which they are packaged,

DROPPER FITTINGS
FOR EVERY USE •

We carry a complete line of patented non-frictional dropping parts and fitments. Single and double shell metal caps and standard black and brown plastic caps are carried in stock. Plastic caps in other colors can be furnished without delay on special orders. Pippettes of any length or shape, and rubber nipples in every color are available for immediate delivery. For products requiring oil-resistant parts, we have available Neoprene synthetic rubber nipples. Neoprene, when in contact with any oil base solution, does not swell as will ordinary rubber. Write for further information on this new development in nipples.

• *NEW* ATOMIZING DROPPERS. *The Atomizing Dropper will atomize both liquids and powders. When the point is held down it's a dropper; hold it up and it is an atomizer. Write for samples and prices on the new Atomizing Droppers and the rubber Vest Pocket Atomizer.*

GLASS PRODUCTS CO. VINELAND NEW JERSEY

Use LABELS AND SEALS ••

FAITHFUL *by* SERVICE

JOHN HORN

837-839 TENTH AVENUE

NEW YORK N.Y.

FOR OVER FIFTY YEARS

for greater sales appeal

METAL · EMBOSSED
ENGRAVED
DIE STAMPING FOR BOXMAKERS

---

we can contribute years of successful experience to your cosmetic manufacturing problem. Inquiries invited.

dresden cosmetic co., inc.

122 WEST 26 ST. • NEW YORK

SHEET METAL GOODS

SPRINKLER TOPS

CORK TOPS DOSE CAPS

CONSOLIDATED
FRUIT JAR COMPANY
NEW BRUNSWICK, N. J.

or in any other manner. The order also prohibits the representation, directly or by implication, through use of the foregoing phraseology or other words of similar meaning, or by unnecessary obliteration or concealment of the words indicating the foreign origin of the handles in processing the brushes, that toothbrushes made from imported handles are of domestic manufacture.

Must Drop "College"

Buford & Owens College, Oklahoma City, Okla., distributor of preparations for hair and scalp, and three of its officers, have been ordered to cease misrepresentations in the sale of their preparations.

Respondents represented their preparations as constituting cures or remedies for dandruff, falling hair, and scalp diseases and as being capable of promoting the growth of hair, when such were not the facts. It was also found that by use of the word "College" in the corporate name of their organization the respondents represented that they conducted an institution of higher learning, when in fact the respondent corporation is not a college.

The order directs the respondents to cease advertising that "Buford & Owens Hair Oil," "Buford & Owens Pressing Oil," "Buford & Owens Special Oil," and "Buford & Owens Shampoo" are cures or remedies for dandruff, falling hair or scalp diseases, or will promote hair growth or prevent hair from falling out, and to discontinue using the word "College" as part of the corporate name or representing that the respondents conduct an institution of higher learning.

Curl-O-Wave Stopped

The F.T.C. has ordered J. W. Cooper and James J. Cooper, trading as Curl-O-Wave Company, Chicago, to cease misrepresentations of a hair curling preparation.

In their advertising matter, respondents have represented that "Curl-O-Wave", will make the straightest hair naturally curly, transform obstinate hair into dainty curls, and improve the texture of the hair, and that their product is odorless, beneficial to the hair and not an ordinary hair curling fluid but a new discovery.

Findings are that the product will not accomplish the results claimed, and that it is an ordinary curling fluid and not a new discovery.

F.T.C. Stipulations

B. Frank Senseman agrees to cease representing that a medicinal preparation designated "Dr. Senseman's Calf Scours Remedy" and "Dr. Senseman's Calf Scour Powder" is an effective treatment or competent remedy for the disease known as white scours, or restores to normal the intestines of calves afflicted with that disease.

Harold Hain, trading as Hain Pure Food Company, agrees to discontinue representing that "Hain Col-Lax" is a laxative food or a natural laxative; will effect a change in intestinal flora, or is efficacious or harmless in all cases of intestinal disorders. He further agrees to cease representing that "Hain Col-Lax" will do more than relieve constipation; that the use of "Hain Colon Food" will completely eliminate putrefaction or clear the blood stream of toxic wastes, and regulate the entire system. He further stipulates that he will cease designating in any way that his lactose dextrin product is a colon food.

Asthma and Hay Fever

Kirkwood Laboratories, Inc., Clifton, N. J., stipulates that it will cease advertising "Har-Ex Capsules" as a competent or effective remedy for hay fever, rose fever or asthma, as a new medicine or method of treatment, as quick to ease suffering or sneezing from hay fever or rose fever or to give relief from trouble due to local irritation. The respondent also agrees to desist from the representation that the misery of rose fever, hay fever or asthma is ended by use of its preparation.

Iodine Corn Remover

Iod-Ise Manufacturing Company, Inc., Clifton, N. J., agrees to cease representing that the preparation designated "Iod-Ise" is an "iodine" corn remover or an "iodine" discovery or preparation; that the product "ends" or "stops" soreness or pain, will afford permanent relief, or that it will rid one of corns or prevent their return, or that the product heals tissue. The respondent also agrees to cease representing that the actual removal of corns is due in any way to the iodine content of its product.

Odo-Ro-No to Stop Claims

The Odo-Ro-No Company, Inc., New York, distributor of "Odorono," agrees to cease representing in any manner that the results to be obtained from the use of Odorono are unqualified, immediate and absolute, as implied by such words and phrases as "no possibility," "insure," "stop," "instantly" and "always." The Odo-Ro-No Company further agrees not to publish or cause to be published any testimonials containing representations contrary to the foregoing agreement.

Athlete's Foot

Pritchard and Thompson Advertising Agency, Inc., New Orleans, agrees to cease disseminating advertisements which represent, directly or by implication, that "HF" is a remedy and a complete treatment or cure for athlete's foot; that other preparations are not beneficial in treating this condition or disease and will not reach the parasites causing it, and that the use of "HF" will keep a person "rid" of this disease or condition and eradicate the germs causing it.

Other representations to be discontinued by the agency are that the use of "HF" will cause the itching accompanying athlete's foot to stop; that the product is world renowned, and that more money has been spent for advertising it in a given time than for any other athlete's foot medicine.

Packer's Scalptone to Stop

Packer's Tar Soap, Inc., New York, in connection with the sale of "Scalptone," agrees to cease representing that all dandruff is due or usually due to an infection with Pityrosporon ovale or any other organism; that the respondent's product, used either alone or in combination with any other product, will eradicate, prevent, cure, or rid the scalp of dandruff permanently, arrest falling of hair or increase its growth, except when limited to such results as may be achieved by its action in cleansing the scalp and stimulating the circulation of the hair follicles; that "Scalptone" disinfects the scalp and constitutes a complete scalp treatment; that experts generally are of the opinion that baldness is due to wetting of the hair; that dandruff is generally the cause of baldness, or that any organism is recognized as "the dandruff germ."

The respondent further agrees not to publish any testimonials containing representations contrary to the foregoing agreement.

Wild Drug Co. Modifies

The F.T.C. has accepted from Herman R. and Robert M. Wild and Harry F. Thompson, trading as Wild Drug Company, Huntington, W. Va., a stipulation in the sale of "Wild's Cold Capsules" and "Wild's Cough Syrup."

The respondents agree to cease advertising that they manufacture either product; that the cold capsules have a tonic effect or have value in building up body resistance; that they will stop colds or prevent their development; that they will provide relief from colds, unless this is expressly limited to relief of certain symptoms, or that all ingredients of the capsules are harmless.

Under their stipulation, the respondents agree to cease representing that the cough syrup will prevent the development of colds; that it will relieve bronchial troubles or colds, unless the relief is expressly limited to certain symptoms, and that it will stop any cough or afford relief from a cough regardless of its severity.

The stipulation points out that whatever value the respondents' preparations possess is limited to relief of certain symptoms.

PUT SALES-APPEAL INTO YOUR PRODUCT!

●

TRY CAMELIA NO. 5 . . . $8.00 lb.

LOW IN PRICE HIGH IN QUALITY

●

Perfume Your Cream

WITH THIS DELIGHTFUL FRAGRANCE OF SCENTED CAMELIAS

Additional Cream Suggestions

ROSE FORTE NO. 1	$2.50 pound
LILAC FORTE	1.75 "
GARDENIA 557 TL	8.00 "
LOCUST BLOSSOM	8.00 "
HONEY ROSE REGALE	16.00 "

●

For Face Powders

EXOTIQUE 60 T. A. (Tropical Flower Gardens)	$12.00 pound
AMORA No. 550 (Dainty)	16.00 "
APPLE BLOSSOM F P	20.00 "

Samples on request

●

PFALTZ & BAUER, Inc.

EMPIRE STATE BLDG., NEW YORK CITY

NEWS

Associations

Largest Drug Trade Dinner

The fifteenth annual dinner of the Drug, Chemical and Allied Trades Section of the New York Board of Trade was held March 14 at the Waldorf-Astoria.

Ralph E. Dorland, chairman of the section, introduced the only speaker of the evening, Senator Gerald P. Nye of North Dakota. A reception and cocktail party preceded the dinner and J. J. Toohy and his reception committee of over one hundred members saw to it that the dinner started promptly at 7.30.

The dinners are always well attended but the one this year had a record crowd.

RALPH E. DORLAND

Williams on D. & C. Club Board

New members of the board of governors of the Drug and Chemical Club elected at the annual meeting of the club on February 15 for a period of three years are: Victor E. Williams, Monsanto Chemical Co.; W. R. Crane, Crum & Forster, and A. J. Smith, Zweig, Smith & Co. Members re-elected for a three-year term are: W. D. Barry, Mallinckrodt Chemical Works and H. B. Lamy, Jr., Pacific Fire Insurance Co.

A.D.M.A. Convention Committee

William D. Barry, Mallinckrodt Chemical Works, New York, is chairman of the general committee on entertainment for the convention of the American Drug Manufacturers' Association which will be held May 6 to 9 at White Sulphur Springs, W. Va. J. P. Remensnyder, Heyden Chemical Corp., is vice-chairman of the committee.

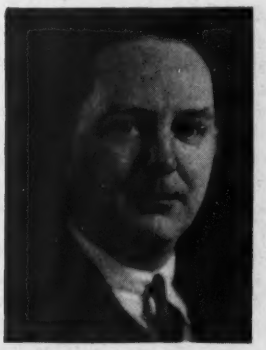
WILLIAM D. BARRY

The chairmen of the sub-committees are: banquet—W. N. De Noyelles, Charles Pfizer & Co., New York; evening entertainment—J. P. Remensnyder, Heyden Chemical Corp., New York golf—Herman J. Dietel, Merck & Co., Rahway, N. J.; ladies' events—A. A. Wasserscheid, Mallinckrodt Chemical Works, New York; publicity—Gerald S. Furman, Merck & Co., New York; tennis—S. Barksdale Penick, Jr., S. B. Penick & Co., New York; and transportation—Robert B. Magnus, Magnus, Mabee & Reynard, Inc., New York.

The convention will start with sectional meetings on May 6. The first general business session will be held May 7 in the morning and the annual banquet will be May 8.

T.G.A. Convention Committee

The committee for the 1940 convention of the Toilet Goods' Association, which will be held in New York, May 14, 15 and 16, is composed of the following: L. R. Root, Scovill Mfg. Co., chairman; A. C. Burgund, Carr-Lowrey Glass Co.; Charles Fischbeck, P. R. Dreyer, Inc.; W. E. Klaas, Brass Goods Mfg. Co.; M. Lemmermeyer, Aromatic Products Inc.; W. P. Murray, Continental Can Co.; Karl Voss, Karl Voss Corp.; and J. B. Walker, Hazel Atlas Glass Co.



L. R. ROOT

The convention committee's headquarters are in the Chrysler Bldg., New York.

Olive Oil Assn. Award

The Olive Oil Association of America, Inc. will hold a "Harmony" dinner at the Hotel Astor, April 4. Announcement will be made at the dinner of the details of a considerable cash award for the outstanding contribution to the advancement of chemical analysis in olive oil. It will be known as the Charles A. Tosi award. Great interest has been expressed in it and it is expected to result in nation-wide rivalry between analytical and commercial chemists. Arthur Schuman is chairman of the ticket committee for the dinner.

Contact Committee on N. F.

At the combined contact committee of the American Drug Manufacturers' Association and the American Pharmaceutical Manufacturers' Association, held in Washington, February 15 and 16, the appointment of three new sub-committees was announced. The committee on the National Formulary will study proposed changes in the Formulary and make recommendations to the contact committee. The committee will also make available to the Formulary Revision Committee, as required, the accumulated experience of the represented manufacturing groups.

The other two sub-committees are new medical advisory groups, one from each association, which will cooperate in the development of a definite pattern for certain phases of labeling. Members of the committee representing the American Drug Manufacturers' Association are: Dr. J. D. Ralston, Parke, Davis & Co.; Dr. Raymond Rice, Eli Lilly & Co.; and Dr. E. Gifford Upjohn, the Upjohn Co. The committee representing the American Pharmaceutical Manufacturers' Association is composed of Dr. R. S. Kemp, G. D. Searle & Co.; Dr. David A. Bryce, Calco Chemical Division of American Cyanamid Co.; and Dr. William H. Stoner, Schering Corp.

Guild of Cosmetic Industries

The Guild of Cosmetic Industries, Inc., will hold a special meeting May 25 and 26 at the Palmer House, Chicago. All direct selling cosmetic companies, whether they are members of the association or not are invited to send representatives to the meeting.

The officers of the guild are: president, Clyde Balsley, general manager, Merle Norman Cosmetics, Ocean Park, Calif.; first vice-president, Arthur L. Stoecklin, Madame White Cosmetics, Morrow, O.; second vice-president, Lynn R. Fairbanks, general manager, Ex-Cel-Cis Beauty Products, Salt Lake City; secretary-treasurer, L. W. McKay, general manager, Princess Nyla and Marlo Cosmetics, Evansville, Ind.; and legal counsel, Theodore Lockyear, Evansville, Ind.

Correa to Head Oil Trade

The Oil Trade Association of New York will hold its annual meeting for the election of officers and directors at the Waldorf-Astoria, March 19. Nominations for the coming year have been made as follows: president, William H. Correa; vice-president, W. M. Osborn; secretary, Joseph C. Smith; treasurer, Rudolph G. Sonneborn; directors, Charles V. Bacon, John W. Baker, J. H. Blakney, E. L. Cleaves, William H. Correa, Dart E. Hoffman, W. M. Osborn, John F. Renick, H. Mart Smith, Joseph C. Smith, Rudolph G. Sonneborn, Albert J. Squier and Edward A. Theurkauf

Packaging Institute Dinner

The semi-annual dinner meeting of the Packaging Institute will be held Tuesday, March 26, at the Hotel Astor, New York. This meeting occurs on the first day of the Packaging Exposition held at the same hotel and will be preceded by a cocktail party at which the institute will be host. William M. Bristol, president of the institute has appointed the following committee on arrangements: Harold M. Bowman, Unit Packages, Inc., chairman; Morehead Patterson, American Machine & Foundry Co., and Frank K. Greenwald, National Starch Products, Inc.

A special meeting to discuss problems of the packaging machinery industry will be held by the members of the machinery division on March 25.

Dean Read Heads Council

Dean William T. Read of the School of Chemistry of Rutgers University has been elected president of the Chemist Advisory Council, New York, a guidance service and clearing house of information for chemists and chemical engineers. In this position he succeeds Dr. Walter S. Landis, vice-president of the American Cyanamid Co. Dr. Gustavus J. Esselen, president of Gustavus J. Esselen, Inc., Boston, has been made vice-president and M. R. Bhagwat continues as secretary and Dr. Robert T. Baldwin continues as treasurer.

Baltimore Drug Exch. Committees

J. O. Robinson, E. B. Gilpin Co., president of the Baltimore Drug Exchange, has appointed the following committee chairmen: auditing, Leo C. Muth, Muth Bros. & Co.; credits and collections, Howard L. Johnson, H. B. Gilpin Co.; legislation, Charles L. Fardwell, McCormick & Co.; membership and entertainment, J. F. Whitescarver, U. S. Industrial Chemical Co.; public improvements and trade interests, Lester Jones, McCormick & Co.; and publicity, H. C. Lamkin, J. J. Lamkin's Son.

Chemical Salesmen's Golf

Philip LoBue of Joseph Turner & Co., chairman of the entertainment committee of the Salesmen's Association of the American Chemical Industry, has announced the selection of dates for the association's four golf tournaments this year. The first will be held at Green Meadow Country Club, Harrison, N. Y., June 18; the second at Canoe Brook Country Club, Summit, N. J., July 16; the third at the Bonnie Briar Club, Larchmont, N. Y., August 20; and the final tournament of the season at Pomonok Country Club, Flushing, N. Y., September 17. These are final dates which have been carefully selected to avoid conflict with other associations.

Bohan Wants Reciprocal Trade

J. D. Bohan, general sales manager of the Centaur Co., and chairman of the Foreign Trade Section of the Proprietary' Association appeared before the House Ways and Means Committee to urge the continuance of the present power of the President to negotiate reciprocal trade agreements with foreign countries. Mr. Bohan supported the view that the program has been of great value to the drug industry.

N.A.M. Honors Pioneers

The national Association of Manufacturers held a dinner at the Hotel Waldorf-Astoria, New York, February 27, in celebration of the 150th anniversary of the American patent system. A feature of the dinner was the presentation of scrolls to 102 inventors of the New York-New Jersey area "in recognition of their contributions toward creating new opportunities and better standards of living." Among the inventors honored with scrolls were: Leo Hendrik Baekland, Bakelite Corp., New York; Frederick M. Becket, consultant, Union Carbide & Carbon Corp., New York; George Oliver Curme Jr., Carbide & Carbon Chemicals Corp., New York; Harry Linn Fisher, United States Industrial Alcohol Co., New York; John McDonald Hothersall, American Can Co., New York; Martin Hill Ittner, Colgate-Palmolive-Peet Co., Jersey City; Walter Savage Landis, American Cyanamid Co., New York; Robert R. Williams, Bell Telephone Laboratories, New York; and a joint award was made to Roy A. Shive, Calco Chemical Co., Bound Brook, and others.

Chemical Salesmen's Lunch

As is their custom, the Salesmen's Association of the American Chemical Industry held a luncheon meeting at the Waldorf-Astoria, March 14, the same day as the annual Drug Trade Dinner.

Cal Lewis, public relations counsel, was the speaker. His subject was "Publicity as an Aid to Sales (or Three Men on a Horse)."

Chicago D. & C. Assn. Lunch

The February luncheon meeting of the Chicago Drug and Chemical Association was held February 29 at the Morrison Hotel, that city. The speaker was Dr. Emory W. Luccock of Evanston who discussed conditions in China and the war between Japan and China. Dr. Luccock's talk was based on first-hand information gained during fifteen years in China.

Weicker Heads Finnish Relief

Theodore Weicker, chairman of the board of E. R. Squibb & Sons, has accepted the post of chairman of the committee for the drug and cosmetic industries to aid the Finnish Relief Fund, Inc.

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USI ALCOHOL NEWS USI

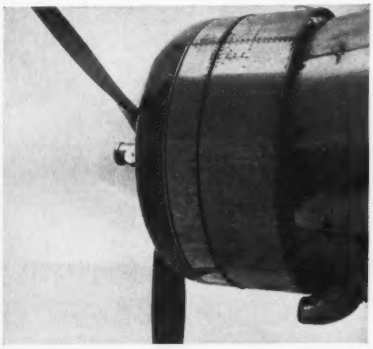
March ★ A Monthly Series of Technical Articles for Chemists and Executives ★ 1940

Alcohol Addition Found to Prevent Carburetor Icing

Provides Simple Way of Reducing Risk of Aircraft Engine Failure

LONDON, England—A simple and effective remedy for prevention of ice formation in the carburetors of aircraft engines is found in the use of a solvent to dissolve the ice, it is reported in *Shell Aviation News*. Alcohols are said to be suitable for this purpose, because when dissolved in water, they lower its freezing point.

Methyl alcohol is one of the most effective



Alcohol provides a simple method of preventing formation of ice in carburetors of aircraft engines.

alcohols in this respect, but it does not blend readily with most fuels. Ethyl alcohol can be used either dissolved in the fuel, or separately, it is reported.

5% Usually Effective

5% of ethyl alcohol blended with gasoline almost completely prevents ice formation, it is claimed. However, since such blends are susceptible to separation if water is present, it is considered to be preferable to have the alcohol supply come from a separate tank rather than to blend it with the gasoline.

(Continued on next page)

Treasury Revises Ruling On Rubbing Alcohol Sales

WASHINGTON, D. C.—During the past several months the Alcohol Tax Unit of the Treasury Department has been conducting a thorough investigation regarding the use of rubbing alcohol and bay rum compounds for beverage purposes. The use of such preparations for beverage purposes has become so common that the Alcohol Tax Unit has been compelled to revise its former regulation and further restrict not only the manufacturer and the jobber, but also the retail distributor.

These circumstances occasioned the issuance of T. D. 4963, "Labeling and Sale of Rubbing Alcohol Compound (Amendment of Regulations No. 3)."

U.S.I. Establishes Safety Record

BALTIMORE, Md.—The best safety record ever established by the Curtis Bay Plant occurred during the period from January 1 to October 30, 1939. Within this interval of time, the plant operated for a total of 446,470 man-hours without one single disabling injury.

Industrial Alcohol Adaptable To Wide Range of Applications

Long List of Authorized Formulas Permits Selection to Meet Requirements of Specific Industrial and Scientific Uses

The term "Industrial Alcohol," under federal law, includes "Ethyl Alcohol" in its pure state, for other than beverage purposes, as well as all formulas of Denatured Alcohol lawfully used in science, the arts and manufacturing industries.

The Government authorizes three types of industrial alcohol: (1) Pure; (2) Completely Denatured; (3) Specially Denatured.

Ethyl Alcohol is hydrated oxide of ethyl, or spirit of wine, from whatever source or process produced, having a proof of 160 or more. It does not include substances known as whiskey, brandy, rum or gin. It is manufactured in this country mostly from the fermentation of molasses and grain but a very large quantity is also made synthetically; i.e., produced by a combination of chemical elements as distinguished from fermentation process.

"Alcohol Proof" is a term expressing the strength or quantity of alcohol and is equivalent to the amount of alcohol by volume, multiplied by two. For example, 190 proof alcohol is 95% by volume. "Absolute Alcohol," known commercially as "Anhydrous," is 200 proof, or 100% alcohol by volume.

A "wine gallon" is a measure of volume equal to 231 cubic inches.

Pure Alcohol

Pure Ethyl Alcohol may be purchased under Government permit tax-free, solely for use by governmental agencies, hospitals, laboratories, colleges, etc.

Pure Ethyl Alcohol, upon the payment of the Internal Revenue Tax of $2.25 per proof gallon, may be withdrawn from bond and sold for certain medicinal, scientific and other lawful manufacturing uses, without federal permit, or bond. However, practically all states have special regulations concerning the purchase and use of pure alcohol for non-

(Continued on next page)

Describe New Method of Crystallizing Vitamin E

FRANKFORT-ON-THE-MAIN, Germany —That vitamin E can now be obtained in crystalline form is claimed in a U. S. patent granted to two inventors here.

The process is said to involve no complicated pre-purification of materials. A typical procedure, according to the patent, consists in dissolving a vitamin E preparation in petroleum ether and adding cyanic acid. Further steps include extraction with ether and the dissolving of the residue in light petrol. This solution is then filtered through a column of aluminum oxide, washed with petrol, dried, and eluted with a mixture of methyl alcohol and ether.

Methyl Alcohol and Ether are produced by U.S.I.

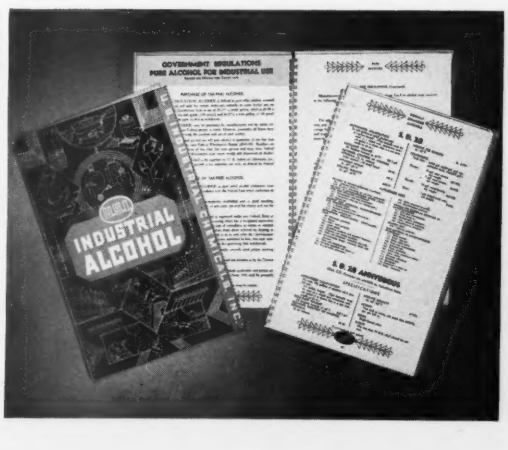
A convenient table lists the contractions in volume when alcohol is mixed with water. Contraction is given both in cc. and in per cent, and the per cent reduction in strength is included in the table also. Copies of this table may be obtained by writing U.S.I. Ask for Bulletin CV.

Alcohol Production Rises

WASHINGTON, D. C.—Production of both ethyl alcohol and specially denatured alcohol has shown a considerable increase in recent months, it is indicated by figures released by the Bureau of Internal Revenue.

Production of ethyl alcohol for December, 1939, was 22,080,109 proof gallons, while the production of specially denatured alcohol was 10,502,486 wine gallons. For the corresponding month in 1938, the figures were 16,780,614 and 8,372,981, respectively.

The Industrial Alcohol Handbook, published by U.S.I., gives to the user of industrial alcohol a complete list of the authorized uses for specially denatured alcohol. For convenience, these uses are classified under 15 broad divisions, embracing about 90 subdivisions. In addition to this section on specially denatured alcohol, there are other sections on pure and completely denatured alcohol, as well as U.S.I.'s proprietary products, Solox and Super Pyro Anti-Freeze. A summary of government regulations is also included, as well as a section of technical data, which comprises much helpful information, such as U.S.P. methods of testing, tables of physical characteristics, and gauging of tank cars. Copies of this helpful book may be obtained by writing U.S.I. on your letterhead.



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Many Uses For Alcohol

(*Continued from previous page*)

beverage purposes.

To promote the lawful industrial use of Ethyl Alcohol, the Government also allows the withdrawal and use of this important chemical free of tax, after it has been denatured with materials rendering it unfit for beverage purposes. There are two types of denatured tax-free alcohol authorized:

(1) Completely Denatured Alcohol is sufficiently denatured by the addition of materials specified by the Internal Revenue Department to preclude the possibility of its being used for beverage purposes. It can be sold and used in any quantity, except in tank cars, without obtaining a Government permit. The principal uses of Completely Denatured Alcohol are for anti-freeze, fuel, light and power.

(2) Specially Denatured Alcohol is denatured by the addition of various substances under nearly sixty Government formulas, each one of which is designed to meet the stringent requirements of the manufacturers of the thousands of materials whose production requires Ethyl Alcohol as a raw material.

Denaturant Selection

Denaturants are carefully selected by Government chemists, with the assistance of scientists and technologists of the industries concerned, so that although they render the alcohol unfit for beverage use, they do not affect its utility for special manufacturing purposes.

Every user of Specially Denatured Alcohol must furnish a bond and obtain a permit from the Government. Before a permit is granted, investigation is made of the company, plant and business and systematic inspection of all transactions under the permit is made by Government officers to be sure of compliance with the law. No license fees are charged for this permit but a surety bond must be furnished, in amount depending upon the quantity of alcohol withdrawn during each thirty day period.

Industrial Alcohol Use

The use of Industrial Alcohol in the United States has increased from 1,000,000 wine gallons a year in 1906 to more than 100,000,000 wine gallons a year at the present time. Approximately 32% of this quantity is used in the manufacture of heavy and industrial chemicals; 29.2% by the automotive and petroleum industries; 14.5% in the manufacture of coatings; 8.2% in the manufacture of food products and tobacco; 8% in the drug and cosmetic field; 5.2% in plastics and dyes; 2.9% for chemical specialties and scientific uses.

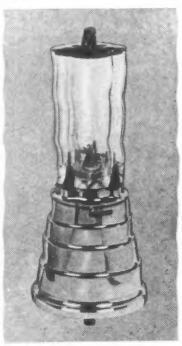
Says Pigments Protect Insecticides From Light

BEACON, N. Y. — That pigments can be used to inhibit the effect of the sun's rays on the toxic principle of insecticides is claimed in a patent issued to an inventor here.

The patent suggests that such insecticides as the powders of derris, cube, or barbasco can be coated with titanium oxide, in order to make an insecticidal composition which is less likely to suffer loss of its toxic principle when exposed to the action of light.

Reports Liquifier Useful In Laboratory Sampling

WASHINGTON, D. C. — That a popular kitchen implement—the Waring Blendor—may be helpful in laboratory sampling of plant tissue is suggested by a scientist of the Department of Agriculture.



Alcohol and Acetone are produced by U.S.I.

A satisfactory procedure, it is said, is to place about 200 cc. of a suitable liquid, such as water, alcohol, or acetone, in the glass container, and gradually add the tissue. 5-minute operation is usually sufficient to reduce 25 to 100 grams of tissue, it is reported.

Carburetor De-Icing

(*Continued from previous page*)

When supplied from a separate tank, the alcohol can be introduced into the fuel system at the float chamber, or at any point in the air intake system. The latter is said to be preferable, since it not only provides a means for removing and preventing ice in the carburetor, but also for removing ice or snow which may accumulate in the intake. By this method ice is removed in a few seconds, it is claimed. Proportions as low as 3% are effective, but 5% is recommended as being sufficient to remove oil and snow from within the air scoop or intake and from the carburetor. A much greater percentage, however, would be necessary to remove ice accretion from the entry mouth.

TECHNICAL DEVELOPMENTS

Further information on these items may be obtained by writing to U.S.I.

Titanium dioxide is reported to be available in a purified form, containing not more than 20 parts of lead or 2 parts of arsenic per million. Maker states that it is especially suitable for the manufacture of face powder, lipstick, nail preparations, etc., and may also find applications in catalysis. **(No. 310a)**

U S I

A new detergent is described as a condensation product of fatty acids and protein derivatives, containing no free fatty acids or sulfonated bodies. It is said that it can be successfully applied in the manufacture of shampoos, as well as industrial soaps and insecticide sprays. **(No. 311a)**

U S I

Petrolatum is said to be available in a long-fiber form that is useful in products in which a salve-like effect is desired. It is reported to have particular advantages in preparations containing large quantities of pigments. **(No. 312a)**

U S I

Morpholine sulphite and bisulphite have good preservative and anti-oxidant properties, it is claimed. It is also said that they have potentialities in the field of permanent waving. **(No. 313a)**

U S I

A cellulose ether now on the market is said to be water-soluble. Suggested applications, according to the maker, are as a thickening agent in cosmetics, in the preparation of pastes and sizes, and for thickening aqueous dispersions of casein and latex. **(No. 314a)**

U S I

Self-polishing waxes are reported to replace a large proportion of the carnauba wax with other materials more readily available. One of these products, said to be similar in properties to the usual gloss-drying waxes, contains only 34 pounds of carnauba wax per 100 gallons. **(No. 315a)**

U S I

Methyl Xylic Ester is the designation of a new material that is said to be suitable for addition to powders and creams, to neutralize the basic odor (such as the metallic odor inherent in talc and other earthy metals). Maker states that the new product blends well with practically all bouquet and most floral odors. **(No. 316a)**

U S I

A first aid material is said to be suitable for application on burns. It is supplied in the form of a water-soluble jelly containing a proportion of tannic acid, and is reported to be proof against freezing down to 20 degrees below zero. **(No. 317a)**

U S I

A protective cream is said to be useful in the protection of hands and other exposed skin against industrial dermatitis. The cream is insoluble in water except when soap is used, it is claimed. **(No. 318a)**

U S I

Linalyl cinnamate, a new synthetic, is said to impart a jasmin-lily-rose note to a bouquet. It acts as both a blending agent and a fixative in jasmin and rose compounds, it is claimed. **(No. 319a)**

U.S.I INDUSTRIAL CHEMICALS, INC.

60 EAST 42ND ST., N. Y. U.S.I. BRANCHES IN ALL PRINCIPAL CITIES

A SUBSIDIARY OF U. S. INDUSTRIAL ALCOHOL CO.

ALCOHOLS
Amyl Alcohol
Butyl Alcohol
Fusel Oil—Refined
Methanol

Ethyl Alcohol
Anhydrous
Absolute
C. P. 96%
Pure (190 proof)
Specially Denatured
Completely Denatured
U. S. I. (Denatured Alcohol Anti-freeze)
*Super Pyro Anti-freeze
*Solox Proprietary Solvent

***ANSOLS**
Ansol M
Ansol PR

ESTERS, ACETATES
Acetic Ether
Amyl Acetate
Butyl Acetate
Ethyl Acetate

ESTERS, ETHYL
*Diatol
Diethyl Carbonate
Diethyl Oxalate
Ethyl Chlorocarbonate
Ethyl Formate
Ethyl Lactate

*Registered Trade Mark

ESTERS, PHTHALATES
Diamyl Phthalate
Dibutyl Phthalate
Diethyl Phthalate
Dimethyl Phthalate

OTHER ESTERS
Amyl Propionate
Butyl Propionate
Dibutyl Oxalate

INTERMEDIATES
Acetoacetanilid
Acetoacet-o-chloranilid
Acetoacet-o-toluidid
Ethyl Acetoacetate
Sodium Ethyl Oxalacetate

ETHERS
Ethyl Ether
Ethyl Ether Absolute—A.C.S.

OTHER PRODUCTS
Acetone, C.P.
Collodions
*Curbay Binders
*Curbay X (Powder)
Derex
Ethylene
Methyl Acetone
Nitrocellulose Solutions
Potash, Agricultural
*Vacatone
*Curbay B-G

Vice-chairman of the committee are: H. L. Brooks, president of the Toilet Goods' Association; George V. Doerr, president of the National Wholesale Druggists' Association; Sydney James, president of the Federal Wholesale Druggists' Association and R. D. Keim, vice-president of E. R. Squibb & Sons.

Copley Talks On Vitamins

The regular meeting of the New York branch of the American Pharmaceutical Association was held March 11 at the Columbia University College of Pharmacy. The meeting was addressed by Dr. D. M. Copley, director of vitamin research, Norwich Pharmacal Co. Dr. Copley's subject was "Survey of the Vitamins."

Companies

Evans Chemetics, Inc.

A novel and very unusual service is now being offered to American cosmetic manufacturers. The organization of Evans Chemetics, Inc. in the United States adds another important unit to what is developing into a world-wide technical and manufacturing service for the cosmetic industry. This company is affiliated with an English factory trained in the American manner called Evans Chemicals Limited, organized near London some two years ago, as well as with other special units located on the European Continent and in Japan.

These two companies manufacture private brand cosmetics and furnish technical and consulting service even outside of their own countries. They hold that it is now easy for the American manufacturer to discuss his foreign problems at home, and quickly reach a solution. Their trained chemists are prepared to travel where goods cannot be shipped, and may thus make possible in such a restricted market, a very profitable local operation.

Both companies are headed by Ralph L. Evans, Ph. D., internationally known chemist, uniquely qualified by his work during the past twenty years in manufacture and sale of cosmetics of practically all types both here and abroad. His interest has been directed largely to those products used by the experts in the beauty field, where he has directed the development of such outstanding successes as the world's leading hair dye, the exothermic machineless method of permanent waving, and a new odorless depilatory.

In America he is ably seconded by E. G. McDonough, Ph.D., chemist, inventor, author of "Truth About Cosmetics" and many widely quoted articles, an outstanding authority on feminine beautification. For many years Dr. McDonough has teamed with Dr. Evans in development work and manufacture.

With the American firm also is Harry Hilfer, B.S., who has worked for over ten years with all types of cosmetics. Mr. Hilfer's intensive specialization in make-up products has brought him recognition as one of the leading authorities in this field.

In England work is in charge of A. B. Bell, A.B., F.I.C., whose fifteen years' experience in the manufacture of proprietary drugs and cosmetics, together with his work done with Dr. Evans, especially fits him to serve this organization.

Standard Brands Vitamins

Thomas L. Smith, president of Standard Brands Inc., has announced the establishment of a new pharmaceutical division under the management of Charles L. Bowman. The new division inaugurates a greatly expanded manufacturing program of Standard Brands Inc. on vitamin and allied products which will be sold direct to

CHARLES L. BOWMAN

manufacturers and distributors of food and drug products.

Mr. Bowman was the founder and one of the original owners of the Vitab Products Co. He was also vice-president of the International Vitamin Corp. where he not only specialized in bulk distribution of vitamin products, but was also active in the advertising and merchandising of its entire line of packaged products.

Peek & Velsor's 100th Year

Peek & Velsor, Inc., importer, exporter and miller of American and foreign botanical drugs, is celebrating its 100th anniversary. The company was founded as W. T. Peek in 1840 and in 1872 the name was changed to Peek & Velsor. After occupying various locations in downtown New York, the company purchased, in 1919, the building at 578-584 Grove St., Jersey City, where large milling and storage facilities are maintained. The offices of the company are at 100 Gold St., New York.

The business is now owned and managed by Joseph H. and Joseph A. Velsor, son and grandson of the original Joseph A. Velsor, one of the co-founders.

Calco Expands Powerhouse

The Calco chemical division of American Cyanamid Co. is building an addition to its powerhouse at the Bound Brook plant.

Owens Names Davis in Texas

Faustin J. Solon, vice-president and general sales manager of Owens-Illinois Glass Co., has announced that Fisher N. Davis, assistant general sales manager has been placed in charge of the company's Texas sales office.

Owens-Illinois recently purchased a 52 acre factory site at Waco and Mr. Davis and Mr. Solon are now in Dallas, where Mr. Davis will make his headquarters, reviewing the company's general sales in that territory. The present offices of Owens-Illinois in Dallas are in the Tower Petroleum Building and larger quarters are being contemplated.

In his new assignment Mr. Davis will have charge of sales in Texas and in parts of Arkansas and Louisiana. James Aydelotte, formerly in charge of the Dallas office, has been transferred to Memphis as branch manager of that office.

R. H. Lanier, who established the Memphis branch office has been promoted to the position of district sales manager.

Mr. Davis has been in the glass business for eighteen years, having joined the former Owens-Bottle Co. in 1922 as a member of the sales staff at Toledo. In 1923 he was placed in charge of sales in Indiana. After nine years there he spent six years in charge of the Philadelphia sales office of Owens-Illinois. In 1937 he was made assistant general sales manager with offices in Toledo.

Dr. Guillium Heads Aschenbach & Miller

Aschenbach & Miller, Inc., Philadelphia, has elected the following officers: president, William Helweg Guillium, M.D.; vice-president, Declan F. Welch; secretary-treasurer, Laurence W. Helweg, and assistant secretary and treasurer, J. Earley Helweg.

This change in personnel again brings the firm, which was established in 1863, under the control of the family of one of the founders, Dr. W. W. Miller. The active management of the company remains in charge of L. W. Helweg.

Karoff Forms Own Company

Robert B. Karoff, formerly general manager of the Stuart Products Co., has severed his connection and will now do business under the name of Karoff, Ltd., with headquarters at 347 Fifth Avenue, New York. All creations by Karoff will be distributed from now on by Karoff, Ltd.

History of Carr-Lowrey

A feature of the February issue of "Baltimore" published by the Baltimore Association of Commerce is an article dealing with the history and development of Carr-Lowrey Glass Co. since its founding fifty-one years ago.

SPRINGTIME and APPLE BLOSSOMS

will soon be here!

Perpetuate, throughout the year, the enchanting atmosphere of springtime by the adoption of ORBIS APPLE BLOSSOM for your extracts, colognes and cosmetics.

Just the right, light odor for spring and summer. Just the right odor to lighten the dark days of fall and winter. JUST THE RIGHT ODOR FOR EVERY SEASON.

APPLE BLOSSOM P
For perfumes and toilet waters.

APPLE BLOSSOM EC
For eaux de cologne

APPLE BLOSSOM T
For powders.

APPLE BLOSSOM C
For creams, no discoloration. If you have had difficulty in masking the odor of lanolin, this product merits your consideration.

Prices and Samples Submitted on Request

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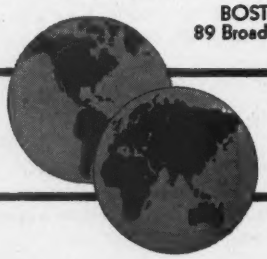
Water Soluble Gums	Waxes	Cosmetic Raw Material	Fruit Flavors
Thymol	Stearic Acid	Oleo Resins	Food Colors
Aromatics	Essential Oils	Perfume Bases	Quince Seed
Rice Starch	Zinc Oxide French	Olive Oil	Irish Moss



Fauster Rejoins Owens

Carl U. Fauster, from 1930 to 1935 assistant advertising manager of Owens-Illinois Glass Co., Toledo, and more recently account executive with United States Advertising Corp., has rejoined the advertising division of Owens-Illinois. He will have charge of advertising and merchandising for the Libbey Glass Co., a subsidiary.

McKesson Salary Increases

Federal Judge Coxe has authorized salary increases of $10 to $250 a month for twenty-one junior officers of McKesson & Robbins, Inc. William J. Wardall, trustee of the company, had recommended the increases as a reward for the high morale of the organization which resulted in business gains last year.

Vint Heads Colgate in Canada

Charles R. Vint, vice-president of Colgate-Palmolive-Peet Co., Ltd., Toronto, has been appointed president. Gordon H. Sloan, sales manager, becomes vice-president in charge of sales.

Kiefer Joins Lueders

William F. Kiefer has joined the sales staff of George Lueders & Co., and will call on the trade in Philadelphia, Eastern Pennsylvania, New Jersey, Delaware and Maryland. Mr. Kiefer has been identified with the essential oil industry for over twenty years.

Procter & Gamble in Dallas

Procter & Gamble Co., Cincinnati, plans to spend about $1,000,000 for the erection of a soap manufacturing plant at Dallas. Since 1921 the company has had a plant in Dallas for the manufacture of cooking fats.

Procter & Gamble has also purchased the land and building formerly occupied by the Hughes Furniture Mfg. Co., which adjoins its property at Haubert and Nicholson Sts., Baltimore. About $55,000 was paid for the addition which contains about 70,000 square feet.

Grant With Houbigant

Pierre Harang, general sales manager of Houbigant, announces that Richard "Gus" Grant is now associated with the organization in the capacity of promotion manager. Mr. Grant has been identified with the toilet goods industry for many years.

Wasserman Joins Plough

H. R. Wasserman has joined the staff of Plough Inc., Memphis. He is division manager in charge of wholesale and retail sales representatives in the Pacific coast division.

McNally Joins Parfums Ciro

H. J. McNally has joined Parfums Ciro, New York. He will cover the Southern territory for the firm. Mr. McNally was formerly connected with Lucien Lelong, Inc., for four years.

Magnus Beefsteak Dinner

Magnus, Mabee & Reynard, Inc., was host to a large group of wholesale druggists and manufacturers at a beefsteak dinner held at the Hotel Astor, New York, on Saturday, March 2. The dinner, which

P. C. MAGNUS

preceded the annual meeting of the Druggists' Supply Corporation, was presided over by Percy C. Magnus, president of the firm. A cocktail hour preceeded the dinner, and an excellent floor-show followed.

Monsanto Expansion

During 1939 Monsanto Chemical Co. invested approximately $4,200,000 for expansion and improvement of its manufacturing facilities in eight American communities according to Charles Belknap, executive vice-president. During 1940 the company anticipates spending an ever larger sum.

Greeff Moves to Radio City

The offices of R. W. Greeff & Co. will be moved May 1 to 10 Rockefeller Plaza, New York.

Peroxide Chemical Moves

Peroxide Chemical Co., San Francisco, has moved to larger quarters at 610 Folsom St., that city.

Rubinstein Expands in Toronto

A fourth floor is being added to the plant of Helena Rubinstein, Ltd., Toronto, at 126 Bloor St. West. It is expected to be ready the end of April.

George K. Lueders Named

F. J. Lueders, president of George Lueders & Co., has announced that at the annual meeting of the stockholders of the company George K. Lueders was elected assistant secretary.

Lakeside Labs. Expand

Lakeside Laboratories has moved to a new and modern building at 2334 No. Oakland Ave., Milwaukee, which gives the company considerably enlarged quarters.

Jones Joins Colgate

Breckinridge Jones has been made assistant sales manager of Colgate-Palmolive-Peet Co. He was formerly with Procter & Gamble and with Hewitt Soap Co.

Fatty Alcohol Sulfate Emulsifiers

The Fine Chemicals Division of E. I. du Pont de Nemours & Co. has issued a new booklet, "Emulsifying with the Fatty Alcohol Sulfates." It contains a discussion of emulsions and the characteristics of "Duponol" alcohol sulfate emulsifying agents.

Sections of the booklet are devoted to solvent emulsions, oil emulsions, wax emulsions and special emulsions and sprays. Formulae for the preparation of a great many emulsions are also included. Copies are available upon request.

Innis, Speiden Gum Bulletins

Innis, Speiden & Co., New York, has issued a set of five bulletins telling the story behind the production and sale of five different water soluble gums. The sheets have been perforated so that they can be kept in a loose leaf book. Copies are available upon request.

Purified Titanium Dioxide

R. F. Revson Co., New York, announces the production of a purified Titanium Dioxide, certified to contain not more than 20 parts lead nor more than 2 parts arsenic per million. This material is expected to be of great interest to the manufacturers of face powder, lipstick and nail preparations. It is also thought that there may be other applications for the product. Samples are available upon request.

Standard Synthetics Catalog

Standard Synthetics, Inc., New York, has issued a new catalogue of its essential oils, terpeneless oils, aromatic chemicals, flavoring extracts and perfume bases. Owing to the fluctuation of the market no prices are quoted. Copies are available upon request.

Dr. Levy Joins Bischoff

A recent addition to the research staff of Ernst Bischoff Co., Inc., Ivoryton, Conn. is Dr. Joseph Levy, who will be in charge of research on new preparations and synthesis. Dr. Levy did his graduate work at Yale University and is a member of Sigma-XI and the American Chemical Society.

People

Ozier of Plough Honored

John Calvin Ozier, secretary-treasurer and a director of Plough, Inc., was honored January 27 with a testimonial dinner at the Peabody Hotel, Memphis, on the occasion of the twenty-fifth anniversary of his service with the company.

JOHN CALVIN OZIER

Abe Plough, president, was toastmaster and presented a trophy, an outboard motor and complete fishing equipment, gifts from Mr. Ozier's fellow workers. He has been chief chemist in charge of production for the firm and has developed many of its best known products.

Paul St. Mayer in New York

Paul St. Mayer, of Mem Toiletries, arrived in New York February 11, accompanied by his wife. He is well known to many in this country who visited his soap and cosmetic manufacturing plant in Vienna. Mr. Mayer estimates that over 500 items were created for sale in this country by his company which maintained its own design department and box factory in connection with the manufacture of quality soaps and perfumes. He is now studying the market here with plans towards establishing a business in this country and would be interested in having any suggestions for the development of his ideas, possibly in cooperation with an existing firm or other individuals with experience in this industry. He may be addressed at the Bedford Hotel, 118 E. 40 St., New York.

Coutlee Addresses Salesmen

Douglas Wakefield Coutlee, director of advertising of Merck & Co., Inc., was the speaker at a luncheon meeting of the Associated Printing Salesmen held at the Hotel Dixie, New York, February 27.

Son to Edgar Ellis

Mr. and Mrs. Edgar Ellis have announced the birth of a son on February 11. This is the couple's second child and first son. Mr. Ellis is with Firmenich & Co.

Herman Brooks Celebrates Anniversary

Herman L. Brooks celebrated his twenty-fifth anniversary of association with Coty on February 8. Mr. Brooks confessed himself at a loss to know whether he will treasure most in years to come the silver memorial plaque presented by the employees of Coty or the gold watch tendered him by his executive staff. B. E. Levy, chairman of the board of Coty, marked the occasion by a luncheon at which he assembled a quorum of the board of directors as well as the executive staff of Coty, in honor of Mr. Brooks.

Mr. Brooks is also president of the Toilet Goods' Association.

Squibb Plan Record

Carleton H. Palmer, president of the Squibb Plan, Inc., has made his annual statement to retail druggist members of the plan, in which he made the following points; the retail members of the Squibb Plan for 1939 showed an increase of 15.3 per cent. in their purchases over 1938; the total earnings of the Squibb Plan for distribution to its retail members by way of dividends and profit sharing increased 19.6 per cent., the highest rates of profit sharing distribution in eleven years of Squibb Plan history; this total distribution of earnings to retail members yielded an average return of 27.4 per cent. on the retail members' investment in the plan for 1939.

Don Smith With Berg-Williams

Donald M. Smith, formerly president of Bristol-Smith, Inc., has joined the executive staff of Berg-Williams Corp., New York, manufacturer of the Dura-Perl line of dentifrices and tooth brushes. He will be elected secretary and a director of the corporation.

Mr. Smith was vice-president and one of the co-founders, with the Bristols of Bristol-Myers, of the Sun Tube Corp.

Daley to Advise on Advertising

Charles Grant Daley, legal editor of the American Banker, has moved his law office to 120 Broadway, New York, where he will specialize in the law pertaining to advertising copy and radio script.

Dr. Griffith on Health Board

Dr. Ivor Griffith, dean of pharmacy and professor of theory and practice of pharmacy of the Philadelphia College of Pharmacy and Science has been appointed a member of the Advisory Board of Health of the Commonwealth of Pennsylvania.

Loring Again Heads D.S.C.

Charles A. Loring, of Gilman Brothers, Boston, was reelected president of the Druggists' Supply Corporation at the annual meeting held in New York March 4 to 9.

Financial

Abbott Earns 28% More

Abbott Laboratories and subsidiaries report for the year 1939 a net profit of $2,048,094. This is equal to $2.61 each on the 752,468 shares of outstanding common stock and compares with a net profit of $1,648,326, or $2.43 each on 640,000 common shares, in the year 1938.

Sales in 1939 increased to $11,485,415 from $9,726,952 in 1938. Current assets at the year-end totaled $12,146,385 and current liabilities, $1,547,320, compared with $8,060,688 and $1,014,435, respectively, on December 31, 1938.

Allied Labs. Earn More

Allied Laboratories, Inc., Kansas City, report for the year 1939 a net profit of $338,498 as against $290,123 earned in 1938.

American Can Earnings Up

American Can Co. reports a consolidated net income for 1939 of $18,284,963, equal to $6.22 a share on 2,473,998 common shares, and comparing with $13,645,498, or $4.35 a share, in 1938.

Net sales for 1939 were $189,434,614, the largest ever reported and compared with $168,781,382 in 1938 and $187,253,465 in 1937.

Anchor-Hocking Doubles Net

Anchor Hocking Glass Corp. and subsidiaries reports for 1939 a net profit of $1,445,498, equal to $1.65 each on 715,550 no-par common shares. In 1938 the net profit was $752,400, or 68 cents a share.

Bristol-Myers Net Increases

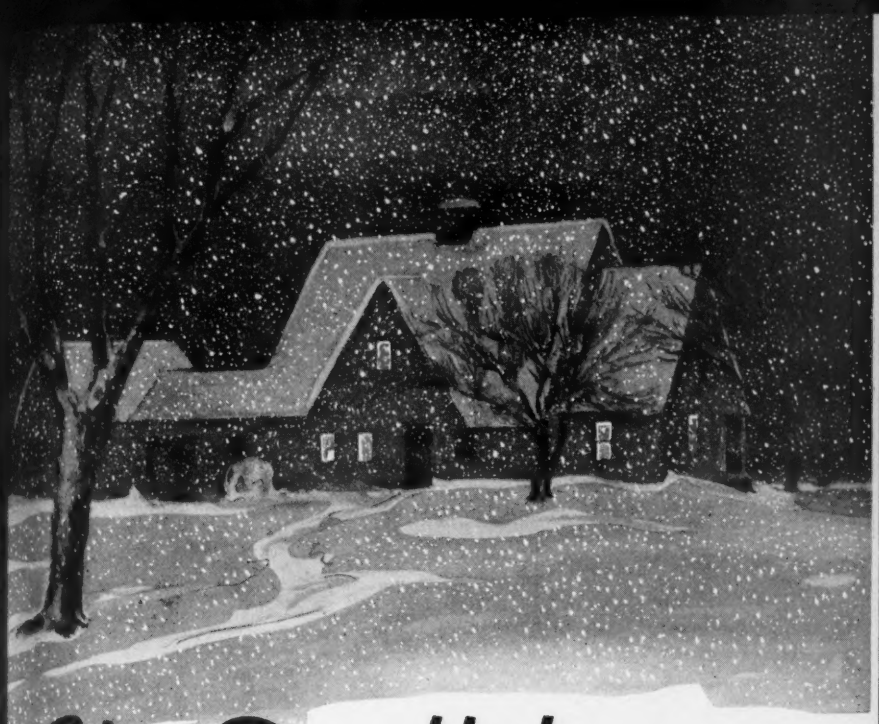
Bristol-Myers Co. report a net profit for the year 1939 of $2,379,784.93, equivalent to $3.49 a share and comparing with a net profit of $2,217,810, or $3.25 a share in 1938.

Earnings for the quarter ended December 31, 1939 were $435,925.46, or 64 cents per share on the 681,881 shares of $5-par stock. In the preceding quarter the net profit was $625,159, or 92 cents a share.

Colgate Earnings Up Sharply

Colgate-Palmolive-Peet Co. reports for the year 1939 a net profit of $6,632,654, equal to $2.74 a share on the common stock and comparing with $4,921,921, or $1.77 a share in 1938. The profit was the largest since 1931.

Net sales of $101,935,438 were reported. The sales reported did not include those of the German, Italian and Polish subsidiaries. The dollar income from the German and Italian subsidiaries was $80,708 and $8,528 respectively. The exact status of the Polish company is not known.



Like Snowflakes in PURITY *and* VARIETY

PURITY...the reason Baker's Fine Chemicals are so widely known, so greatly relied upon.

PURITY...supplied in a variety of convenient forms—large and small crystals, granular, powdered—to meet manufacturers' specific requirements.

PURITY...by the ton. How was it achieved? Not by control methods alone. But by Baker men and methods—the same men who achieved purity to the third and fourth decimal in Baker's Analyzed C. P. Chemicals.

Today...acclaim similar to that given to Baker's Analyzed C. P. Chemicals for more than 30 years, is being accorded to Baker's Fine Chemicals. Hundreds of pharmaceutical manufacturers affirm the fact that Baker has attained standards of purity heretofore unknown for Fine Chemicals.

Men, methods, products in convenient form—these have built a host of friends for the J. T. Baker Chemical Co. The result is constant, repeat business—the finest proof of the esteem customers have for the J. T. Baker Chemical Co. and its products.

Get acquainted with this company and its many distinctive products. Choose a Baker pharmaceutical chemical and compare it with what you may be using. That's the way Baker has won new friends and continued to hold old customers. See the Baker representative the next time he calls. You will find him the type of man with whom you like to do business.

J. T. BAKER CHEMICAL CO., Phillipsburg, New Jersey

NEW YORK	PHILADELPHIA	CHICAGO
420 Lexington Ave.	220 S. 16th Street	435 N. Michigan Ave.

(In Panel) Photographic enlargement of the crystalline structure of Baker's Fine Chemicals

ANALYZED REAGENTS Baker's FINE CHEMICALS

A partial list of Tonnage Fine Chemicals held under rigid control, at no price premium.

- Alkali Bromides
- Potassium Iodide
- Magnesium Oxide
- Cream of Tartar
- Bismuth Subcarbonate—Subnitrate and other Salts
- Caustic Potash and Soda Sticks and Pellets
- Rochelle Salt
- Lead Acetate
- Salicylates

Baker's fine chemicals

for Pharmaceutical Manufacturers

American Cosmetic Manufacturers:

IS YOUR ENGLISH MARKET A HEADACHE?

NOW YOU CAN:

Relieve yourself of Foreign Production Worries.

Leave your English branches and representatives free to concentrate on promotion and sales.

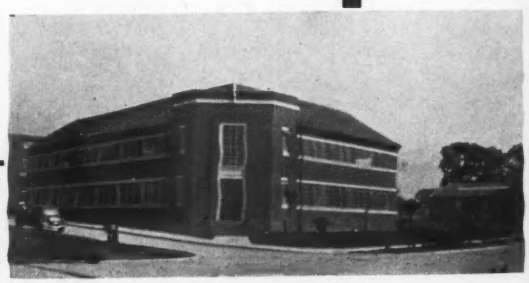
Trust your manufacturing, packaging and shipping to

- **An "Americanized" English Factory located near London.**
- **A Factory well equipped with both production and laboratory facilities.**
- **A Factory and laboratory fully staffed with labor and Chemists trained in the "American Way."**
- **A Factory that can make your products your way.**

and for your CONVENIENCE and SERVICE

A Director permanently located in New York who is in constant contact with the English Factory.

This close American contact with an "Americanized" English Factory offers many advantages. It may save you weeks of delay or serious interruptions of your foreign business.



EVANS CHEMICALS LIMITED

BOREHAM WOOD, HERTS., ENGLAND

For full particulars—Write: **R. L. EVANS, Ph. D., 33 W. 46th St., N. Y. C.** • ***Telephone: BRyant 9-6805***

The current assets on December 31 of branches which operate in foreign countries amounted to $8,433,624, excluding the German, Italian and Polish subsidiaries. Current liabilities were $4,503,661.

Commercial Solvents Profit

Commercial Solvent Corp. reports a net profit of $1,600,389 in 1939, equivalent to 61 cents a share. This is contrasted with a net loss of $294,358 in 1938.

The total sales for the year amounted to $14,480,937, against $11,018,704 in 1938.

Continental Can Earns More

Continental Can Co., Inc., reports a net profit of $8,635,787 for 1939. This is equal to $2.71 a share on 2,853,971 common shares. In 1938 the net profit was $7,101,973, or $2.17 a share.

Gross sales and operating revenues amounted to $117,594,367, of which $92,196,835 represented business with outside customers and the balance sales of tin plate, machinery and other materials. In 1938 sales and revenues were $112,132,289, of which $85,673,999 represented business with outside customers.

Crown Cork Profit Up

Crown Cork & Seal Co., Inc. and wholly owned subsidiaries report for 1939 a net profit of $1,956,048, equal to $2.80 each on 517,609 no-par common shares. This compares with a net profit of $1,213,227, or, $1.37 each on 517,606 shares in 1938.

Dodge Cork Net

Dodge Cork Co., Inc. reports for 1939 a net profit of $36,829, equal to $1.06 each on 34,660 shares of common stock and contrasting with a net loss in 1938 of $417. The net sales for 1939 were $527,468, against $424,242 for 1938.

Emerson Earns Slightly Less

Emerson Drug Co. and subsidiaries report for 1939 a net income of $1,263,630, or $1.60 each on 668,368 shares of common stock, against a net of $1,306,920, or $1.67 a share, in 1938.

Hazel-Atlas Earnings Up

Hazel-Atlas Glass Co. and subsidiaries report for 1939 a net profit of $2,884,149, equal to $6.64 each on 434,409 capital shares. This compares with a net profit of $2,157,962, or $4.97 a share, in 1938.

Net sales were $29,226,498 against $27,099,748 in 1938.

I.V.C. Earns More

International Vitamin Corp. reports for the six months ended December 31 a net profit of $85,107, equal to 42 cents each on 204,000 shares and comparing with $67,906, or 33 cents a share in the last six months of 1938. For the December quarter the net profit was $49,587, equal to 24 cents a share and comparing with $19,297, or 9 cents a share in the same quarter of 1938.

Lambert Earnings Steady

The Lambert Co. reports for 1939 a profit of $1,261,836, equal to $1.69 each on 746,371 capital shares, and comparing with $1,277,798, or $1.71 a share in 1938.

McKesson Earnings Soar

McKesson & Robbins, Inc. and consolidated subsidiaries report for the year ended December 31, 1939 net profit of $4,255,531.45, against $2,288,182.29 in 1938. Reorganization expenses paid by the trustee, William J. Wardall, during 1939 amounted to $456,472.13, of which $175,000 has been allocated to operating expenses, representing estimated normal legal and accounting expenses. Recoveries made by the trustee amounted to $147,294.13.

Net sales for 1939 were $148,789,821.59, as compared with $146,907,245.39 for 1938. This represents an increase of 1.28 per cent.

Mead Johnson Earnings Up

Mead Johnson & Co. and subsidiaries report for 1939 a net profit of $1,814,009, equal to $10.27 each on 165,000 shares of no-par common stock. This compares with a net profit of $1,608,212, or $9.02 a share in 1938.

The company has decided to discontinue temporarily operations of American Soya Products Corp. in order to conserve resources.

Merck Earnings Treble

Merck & Co., Inc. and subsidiaries report for 1939 a net profit of $1,856,830. This is equivalent to $5.26 each on 300,000 shares of $1-par common stock and compares with a net income of $579,356, or $1 a common share in 1938.

Current assets on December 31, 1939, were $8,202,271 and current liabilities were $2,038,258, compared with $6,005,810 and $940,099 respectively at the end of 1938.

Miller Wholesale Drug Net

Miller Wholesale Drug Co. and subsidiaries report for 1939 a net income of $22,426, equal to 53 cents each on 42,410 capital shares, and comparing with $13,541, or 32 cents a share in 1938.

Monsanto Earnings High

Monsanto Chemical Co. reports net earnings of $5,546,416, for the year 1939, equivalent to $4.01 a common share. This compares with $2.35 a share in 1938 and is below the $4.40 earned on a smaller sales volume in 1937.

National Oil Doubles Net

National Oil Products Co. reports for 1939 a net profit of $700,401, equal to $3.90 each on 179,829 common shares. This compares with a profit of $303,326, or $2.24 a share, in 1938.

Stockholders at the annual meeting held March 4 were asked to ratify an increase in the capital stock structure from 200,000 to 300,000 shares of $4-par common stock and to reduce the board of directors from nine to eight as a result of the resignation of John H. Barton, president, March 1.

Norwich Increases Net

Norwich Pharmacal Co. reports for 1939 a consolidated net profit (preliminary) of $783,282, equal to 98 cents each on 797,632 shares. This compares with a net profit of $713,728, or 89 cents a share, the year before.

Owens Net Up 60%

Owens-Illinois Glass Co. reports for 1939 a net profit of $8,434,915, equal to $3.17 a share and comparing with a profit of $5,383,805, or $2.02 a share in 1938.

Net sales, royalties and other operating revenues in 1939 were $82,025,093, compared with $75,106,756 in 1938.

Package Machinery Profit

The Package Machinery Co. reports for 1939 a net income of $123,965, equivalent to $3.43 each on 36,167 common shares, and comparing with $36,601, or $1.01 a share in 1938.

Parke, Davis Earns More

Parke, Davis & Co. reports earnings of $9,254,202 in 1939, equal to $1.89 each on 4,894,743 shares of no-par common stock. This compares with a net profit of $8,639,955, or $1.76 a share, in 1938.

Plough Earnings Advance

Plough Inc. reports for the year 1939 a net income equal to 85 cents a share on 300,000 shares of common stock as compared to 67 cents a share in 1938.

Sharp & Dohme Net Up 35%

Sharp & Dohme Inc., reports for 1939 a net profit of $902,271, equal to 13 cents each on 776,627 shares of no-par common stock. This compares with a net profit of $668,167 in 1938.

Stearns Earns Less

Frederick Stearns & Co. and subsidiaries report for 1939 a net profit of $170,072, equal to 81 cents each on 132,840 shares of no-par common stock and comparing with a net profit of $198,534, or $1.01 a share, in 1938.

Exchange BRAND

Citric Acid

U·S·P·

CRYSTALS • GRANULAR • POWDERED

MADE IN WORLD'S LARGEST LEMON PRODUCTS PLANT
BACKED BY THE SUNKIST GROUP OF 14,000 CITRUS GROWERS

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IMMEDIATE DELIVERY FROM WAREHOUSE IN NEW YORK, CHICAGO, PHILADELPHIA, SAN FRANCISCO

Sterling Products Net High

Sterling Products, Inc. reports for 1939 a consolidated net profit of $9,140,026, equal to $5.25 each on 1,740,871 shares of stock outstanding. In 1938 earnings were $8,741,363, or $5.10 each on 1,712,877 shares.

At the annual stockholders meeting March 26, a proposal to increase the authorized capital stock from 1,705,700 shares of $10-par value to 2,000,000 will be voted upon.

Vick Earnings Steady

Vick Chemical Co. and subsidiaries report for the six months to December 31 net earnings of $1,951,029, equivalent to $2.80 a share against $1,921,909, or $2.08 a share in the six months ended December 31, 1938.

West Virginia Doubles Net

West Virginia Pulp and Paper Co. and subsidiaries report for the quarter ended January 31 a net profit of $754,583, equal to 58 cents each on 902,432 shares and comparing with an income of $389,164, or 17 cents a share in the quarter ended January 31, 1939.

Zonite Shows Loss

Zonite Products Corp. and subsidiaries report for 1939 a net loss after adjustment of net foreign assets to prevailing exchange rates of $27,903. In 1938 the net profit was $49,916, equal to 6 cents each on 826,656 shares.

Brockway Glass Expansion

Brockway Glass Co., Brockway, Pa., filed a registration statement with the SEC covering 4,000 shares of $50 per common and 1,500 shares of $50 par preferred, 6 per cent. cumulative.

Proceeds are to be used in part to pay for the construction of a $750,000 addition to the company's plant at Brockway.

Obituaries

MacKellar Graham

MacKellar Graham, president and general manager of the Nyal Co., Detroit, and vice-president and assistant general manager of Frederick Stearns & Co., that city,

MACKELLAR GRAHAM

died suddenly February 17 at Hollywood, Fla. He was forty-seven years old.

Before entering the drug business, Mr. Graham was employed successively by Fairbanks Morse & Co., Toronto; Ford Motor Co., Walkerville, Ont.; and Oakland Motor Car Co., Pontiac, Mich.

In 1916 he joined Frederick Stearns & Co. as an accountant. Four years later he became auditor of the company and in 1924 he was made assistant treasurer.

In 1927 he was made treasurer of the Nyal Co. In 1934 he also had become managing director of Frederick Stearns & Co., of Canada. In 1938 he assumed the titles and responsibilities which he held at the time of his death.

Charles Killgore

Charles Killgore, founder and head of Charles Killgore, Inc., manufacturer of compressed tablets, New York, died February 12 at his home in Short Hills, N. J., after an illness of a week. He was ninety-one years old.

Mr. Killgore had been connected with the drug trade since 1863 and was at one time connected with the old firm of McKesson & Robbins. In 1866 he established his own business for the manufacture of pills on machines which he had invented and which he patented in 1881 and 1882. In 1887 he was granted a patent covering a process which made possible the rapid disintegration of compressed tablets, thus overcoming one of the principal obstacles to their wide use.

Edwin T. Reynolds

Edwin T. Reynolds, vice-president of Lorr Laboratories, Paterson, N. J., died February 5 at Miami Beach, Fla. He was forty-seven years old.

Skin Protectives

(*Continued from page 286*)

tective ointments in certain industries to help prevent occupational dermatoses. It is quite evident that properly prepared skin protectives have a bright future and a large potential market.

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"New Drug" Policies

(*Continued from page 276*)

tion is fairly familiar with most drug products on the market.

"It would be extremely ungenerous and improper," Mr. Campbell thought, for the Administration not to cooperate with a manufacturer who came in and wanted to bring his product under the law and remove any question of doubt. He suggested that there might be involved in such a case a combination of high potent ingredients on which large dosage was recommended at short intervals, which was "obviously dangerous or otherwise illegal." Such a product would have to be condemned, Mr. Campbell thought.

"If the manufacturer thinks he can acquire immunity by coming in and discussing his product," said the Food and Drug chief in conclusion, "I can make no such promise. We want to promote as far as possible universal observance of the law. We want to deal fairly with the drug industry and other industries, trades, and groups effected by the law. We are disposed to take into account equities that may be involved, but we cannot adopt a course under which a manufacturer or group could obtain the right to do as they please simply because they might talk to us about it in advance."

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INDUSTRY'S BOOKS

Any book reviewed in this section can be purchased direct from THE DRUG AND COSMETIC INDUSTRY at regular publisher's price.

Packaging Catalog 1940, 538 pp., 9 x 12 inches, Illus., Breskin Publishing Corp., New York, Case Bound, $2.50.

This is the twelfth annual appearance of this encyclopedia of the packaging industries. The volume represents a greater degree of change from the previous year than is usually the case, reflecting the marked progress which has been made in packaging techniques in the last twelve months. Under thirteen separate sectional classifications every phase and aspect of packaging is covered in non-technical language planned to aid the packager confronted with any problems of design, merchandising, production or shipping. The sectional breakdown covers the following broad subjects: Design Principles; Paper Boxes; Wrappings and Ties; Bags; Metal Containers; Glass Containers and Closures; Labels, Seals, Tags; Plastics; Displays; Machinery and Supplies; Printing; Shipping; Transparent Containers and Displays. Newly introduced this year is a division of the Design section devoted to packagers and the law, particularly important at this time as a guide for compliance with both federal and state regulations concerning packaging.

Handbook Of Skin Diseases, Gardiner, Revised by John Kinnear, T.D., M.D., M.R.C.P. (Ed.), Fourth Edition, 239 pp., Illus., Williams and Wilkins Co., Baltimore, Cloth, $3.50.

In this revision of the late Dr. Gardiner's work his aim to provide a handbook for the general practitioner and the medical student has been carefully adhered to. An adequate description of the common diseases of the skin has been attempted, while brief reference has been made to the rarer affections. With regard to treatment, lines which have proved useful routine practice have been given in some detail but no attempt has been made to make this subject exhaustive. As the intention is to provide a volume for those who know, or think they know, nothing of the subject, opinions have been purposely given in as dogmatic a form as possible. Contents: Introduction; Dermatoses Due To Bacteria and Protozoa; Dermatoses Due To Ultra-Microscopic Viruses; Dermatoses Due To Animal Parasites; Dermatoses Due To Vegetable Parasites; Dermatoses Due To Glandular Disturbances; The Toxic Dermatoses; Dermatoses Due To Or Associated With Nerve Disfunction; Dermatoses Due To Avitaminosis; Dermatoses Associated With Diseases of The Haematopoietic System; Dermatoses of Unknown Etiology; Hypertrophies and Tumors of the Skin; Congenital Affections of the Skin; Diseases of the Hair.

Sulphated Oils and Allied Products, by Donald Burton, M.B.E., D.Sc., F.I.C., and George F. Robertshaw, A.M.S.T., A.I.C., 163 pp., Chemical Publishing Co., Inc., New York, Cloth, $5.00.

Sulphated, or sulphonated oils as they are usually called, are remarkable not only for the variety of materials which may be sulphated but also for the variety of products which may be obtained from one material. The sulphate oils have become increasingly important as wetting and emulsifying agents. This book deals with the chemistry, literature, and analysis of the sulphated oils and allied products. The compounds produced by the interaction of sulphuric acid and the unsaturated components of a fatty oil are not only complex in themselves but are liable to be altered according to the washing or neutralizing procedure. The authors of this work are prominent in work clarifying the methods of analysis and their decision to review the analytical chemistry of these products at the present time is appropriate. Following are some uses of sulphated products: Detergents; "cutting" oils; Machine oils; Lubricants; Leather Manufacture; Cosmetics; Textiles; Pharmaceuticals; Chemical Specialties; Polishes; Dyeing & Coloring; Paints; Inks; Paper; Adhesives.

Respiratory Enzymes, by University of Wisconsin Biochemists, 235 pp., size 8¼ x 11 inches, Burgess Publishing Co., Minneapolis, Flexible cover, $3.25.

Since the fall of 1937, a group of workers at the University of Wisconsin who are interested in respira-

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Baker Dental Products Packages — Family Group. Folding Cartons, Warner Bros. Co., Bridgeport, Connecticut, and Robert Gair Co., Inc., New York City.

McCormick Food Line — Family Group. Folding Cart
Guilford Folding Box Co., Baltimore, Maryland.

1939 McKesson Men's Set — Set-Up Paper Boxes. Calox Tooth Powder, Individual carton, Warner Bros. Co., Bridgeport, Conn., Shaving Cream Carton, Continental Folding Paper Box Co., Ridgefield, N. J.

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tory enzymes have met at frequent intervals in order to discuss the advances being made in this field. During the past year individual members have presented rather extensive surveys on assigned divisions of enzyme practice and theory. It is believed that a compilation of this material might be valuable not only to this group but also to other students of the subject. This book is the result. Contents: Historical Introduction; Dehydrogenases; The Oxidases, Catalase and Peroxidase; Coenzymes; Carriers—Cytochrome; Flavoproteins; Ascorbic Acid; Glutathione, and Adrenochrome; Inhibition of Dehydrogenases and Related Systems; Hydrogen Transport Systems; Oxidation-Reduction Potentials and Their Applications; Physical-Chemical Theory of Enzyme Reactions.

Money Making Formulas, Edited by C. A. Crowley, B.S., M.S., F.A.I.C., 480 pp., Popular Mechanics Press, Chicago, Cloth, $4.35.

This book contains a collection of practical formulas and processes, an illustrated explanation of chemical methods and procedures, a dictionary of chemical terms and their synonyms, a comprehensive supply directory, and usable information relating to patents, trade-marks, and copyrights. In preparing this new volume of formulas and chemical information, the editor has endeavored to include much more than mere formulas. Each chapter is preceded by a simplified, non-technical, discussion of the characteristics and requisites of each of the various classes of products. In most cases, the functions of the raw materials used in the various products have been discussed in some detail, and where manufacturing methods are of more than usual importance, these also have been given as much consideration as space would permit. Contents Include: New Products, Their Development and Marketing; Laboratory and Experimental Methods; Compounding, Mixing and Packaging Chemical Products; How To Make Emulsions; The Manufacture of Soap; Cleaning and Renovating; Polishes for Wood, Metal and Leather; Household Aids, Pest Control and Fire Prevention; Glues, Adhesives and Cements; Rubber and Plastic Products; Glass and Ceramic Materials; Portland Cement and Building Materials; Paints, Varnishes and Enamels; Lacquers and Specialty Coatings; Shop Work and Processes; Soldering, Brazing and Heat Treatment of Metals; Electroplating and Metal Coloring; Alloys and Foundry Work; Oils, Greases and Lubricants; Corrosion and Its Prevention; Gardening and Agricultural Products; Animal Preparations and Foods; Pharmaceutical Products; Food Products; Cosmetic Products; Dyes and Their Application; Textiles and Leathers; Paper and Graphic Art; Photography and Reproduction Methods; Patents, Trademarks and Copyrights; Appendix of Useful Information; Chemical Dictionary and Supply Directory; Manufacturers of Chemicals.

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. . . there is now available a solderless, clipless tube closure that is positively air-tight and leak-proof?

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. . . that with this patented Westite Hermetic closure perishable foods, light oils, artists' colors, tonics . . . products impossible to seal securely by ordinary methods, are now being packaged in tubes, even for export?

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•

. . . that it is now possible to put the same quantity of material into shorter tubes, to save tube metal and improve the appearance of the package?

•

. . . that machines are now available for filling free-flowing granular materials into tubes?

Improvements in machines and methods for packaging in tubes have been numerous during the past year or two. Collapsible tubes can now be used for practically all liquids, semi-liquids and pastes. A choice of closures is made available by improved machines, so that the most suitable closure may be selected for any specific material. Improvements in design and construction have increased machine flexibility and productivity.

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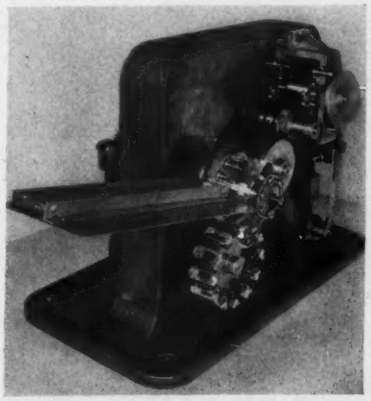
F.J.Stokes PACKAGING EQUIPMENT FJS Est. 1895

PRODUCTION FORUM

BY Francis Chilson
PRODUCTION ENGINEER

AMPOULE PRINTER

Newark Eng. Co., Hillside, N. J., announces the development of an automatic printing device for printing labels directly on the surface of ampoules, vials, and small round bottles. I saw this machine in operation in the plant of the Schering Corp. and it ran very smoothly at 60 ampoules per minute. The machine is very small, compactly designed and is limited in speed only by the ability of the operators to feed and remove ampoules. It operates as follows:



Ampoules are picked up from a feed channel by means of a star wheel and are carried around into contact with an offset printing roller and then are deposited into adjustable buckets on a delivery chain. The rubber offset roller receives the ink impression from engraved plates carried on a slotted roller. The plates are inked from ink rollers mounted above the slotted roller. All motions are rotary, the device contains no reciprocating movements whatever. The engravings slide into position on the slotted roller and are so designed that the date or code number plates can be changed very easily. The device is so simply designed that a female operator can make all adjustments and can change ink, engravings, and carrier chain in a few minutes. The special engravings are obtainable from the Newark Eng. Co. A special ink developed by the company is necessary for best results but so little ink is used that its cost is imperceptible.

A drying oven is furnished with the equipment at a nominal price. In fact, the cost of the entire set up, printing device, and drying oven together is considerably less than you would expect. By using two or more printers and ovens, multi-color effects can be secured. A base color can be applied by passing the glassware through the first machine. Then after the first coat has been dried by continuous passage through the drying oven, printing in contrasting colors can be applied in a second machine. The equipment is adjustable so that a fairly wide range of container sizes can be printed. After a time it is anticipated that this equipment will be built in large sizes for printing labels directly on bottles, round ones especially. This device is a splendid piece of engineering and you would do well to have a look at it.

GLUE STRIPPER

A very handy gadget has been introduced by Boeker Equipment and Mfg. Co., 1217 W. Monroe St., Chicago. This device consists of a fountain type glue stripper usable for applying glue to shipping cases. Various sizes are available including a very small one for use in applying a line of glue to small cartons and to wrappers.

The gadget consists of a hollow handle, a glue roller (ranging in width from ¼" up), a pressure button to feed glue to the roller, and a shut off device. It is

Versatility

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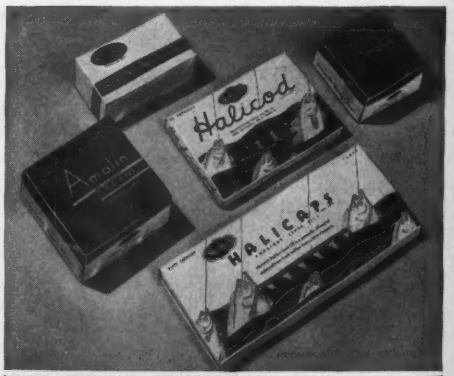
All the widely different products pictured here are wrapped on our FA type machines. Moreover, in addition to this versatility, the FA is designed to handle an extremely wide range of sizes.

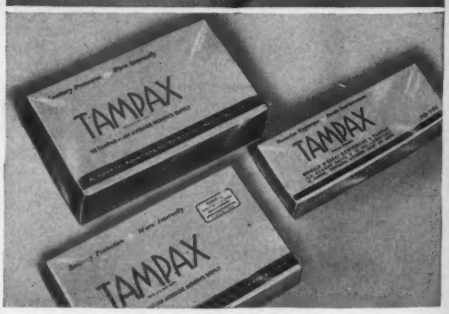
Changes from one size package to another are quickly and easily made by simple hand-wheel adjustments. The FA can be equipped to handle any type of wrapping material — glassine, foil, transparent cellulose, waxed paper, or plain paper wrappers. May be provided with Electric Eye for accurate registration of printed material fed from a roll.

Because of its outstanding advantages, the FA has won remarkable popularity during the comparatively short time it has been on the market. It is a machine you cannot afford to overlook in your consideration of new wrapping equipment.

Consult our nearest office.

Write for Literature





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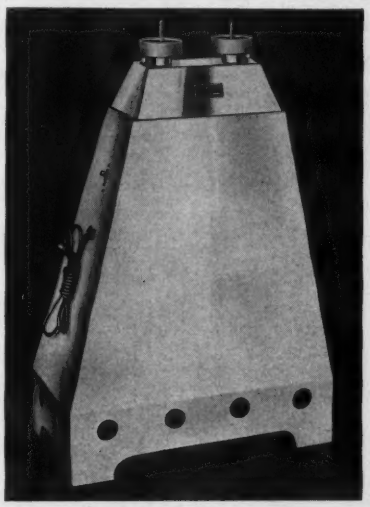
claimed that even volatile lacquers can be applied without drying up in the hollow handle which serves as a supply reservoir.

The same company also sells a compression unit operated by means of a foot pedal and equipped with an overhead glue tank, together with a hose connection and a glue stripper. The operator folds the case flaps back, runs the glue stripper across them, folds the flaps and, after raising the pressure head of the compression unit with his foot, shoves the case under it. Pretty neat, both of 'em.

BOTTLE BLOWER

The U. S. Bottlers Machinery Co., Chicago, offers you a two-tube air cleaner for complete cleaning all types of containers with compressed air. The machine is so designed that two containers may be cleaned simultaneously, the operator being required to invert the containers over the blowing mandrels and to withdraw



them. The unit is equipped with a compressor which is completely housed in the base of the machine and the blowing of the containers is actuated by hand pressure after the containers are placed into position by the operator. This compactly designed unit is intended for use on semi-automatic lines which in the average drug and cosmetic plant are required to deal with a great variety of sizes.

BLENDER

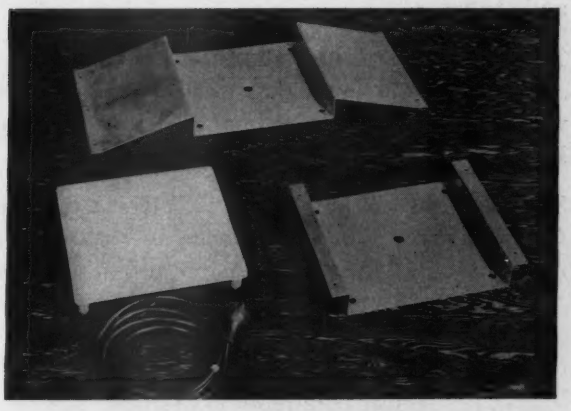
A special blender recently built by L. O. Koven Brothers, Jersey City, N. J., is used for mixing and blending milk, malt syrup and chocolate. This blender, which is 6′ long, 3′ wide, and 3′ deep, is made of stainless clad steel. A motor driven stainless steel double spiral agitator provides complete dispersion of the ingredients and blending to produce a completely homogeneous syrup.

A unique feature of this machine is the pair of semi-circular racks on which barrels or drums can be placed for drainage into the tank and rocked on the wheels to

remove all of the contents. By regulating the flow of liquid, a definite rate of mixing can be established to produce uniform results. The blender may be jacketed to heat or cool product during the mixing. This type of blender suggests extensive use in the mixing of liquids with other liquids, or with dry or semi-wet solids to produce syrups, emulsions, creams, or pastes.

HOT PLATES

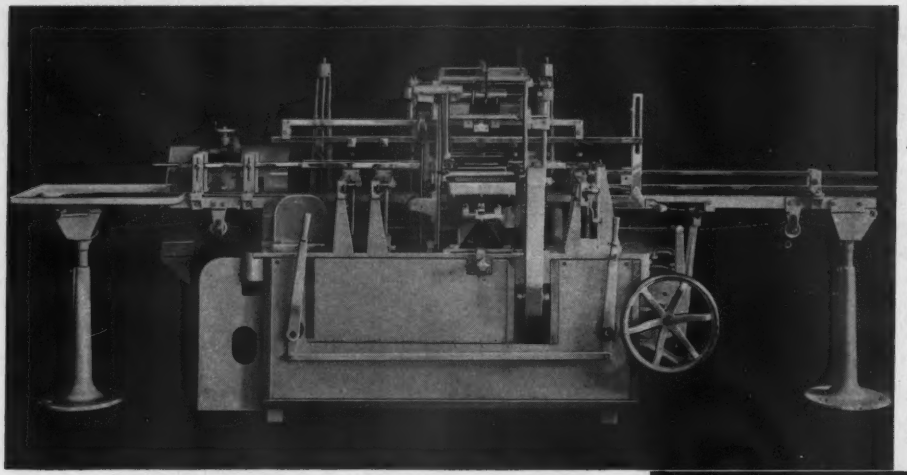
A series of hot plates for hand sealing transparent cellulose or waxed papers have been produced by the Miller Wrapping and Sealing Machine Co., 18 S. Clinton St., Chicago. The units are electrically heated



metal plates of such a size that they can be placed in front of an operator or depressed into the surface of a work table to permit the operator to seal the wrapped package by rubbing it across the hot surface.

ADJUSTABLE PACKAGE CONVEYOR

Here's a new idea in conveyor design which should prove pretty useful to you. It is a work table conveyor which is adjustable as to length and height and both adjustments can be made without affecting belt tension. Moreover it is portable. What the hell more do you



(Left) The Model HS WORLD Automatic Straightaway Labeler for quantity production of neatly labeled flat, square, round, oval or panel bottles, flasks or other packages. Bulletin D-5 contains complete information. Let us mail you a copy.

●

(Below) The Model CH WORLD Semi-Automatic Labeler applies labels from postage stamp size up to 4 x 5" to containers of every size and shape from ampoules up to 4" in diameter. An automatic locking device prevents the label pad from receiving a coating of gum in case no label is withdrawn from the label magazine. Bulletin CH-5 gives you the whole story. Write for it.

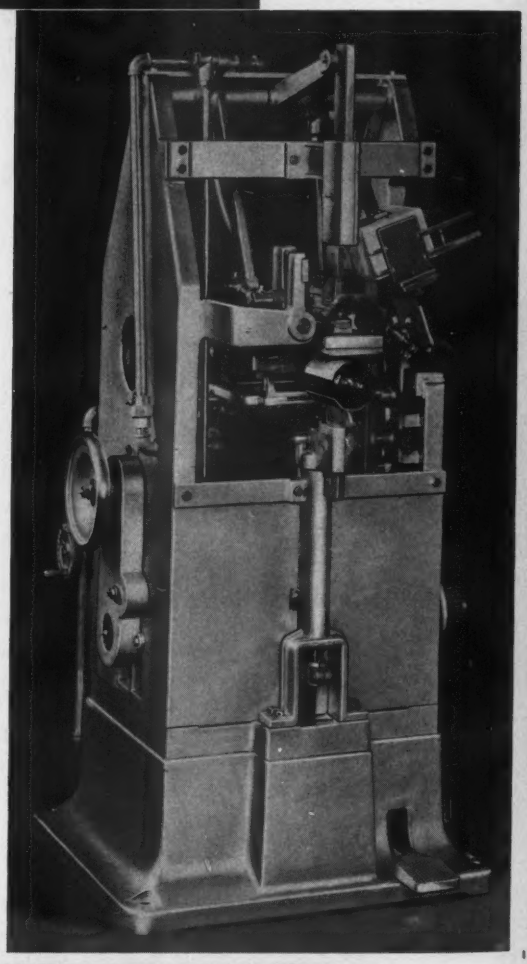
You can be sure of the BEST Labeling in the WORLD

The *Model HS WORLD Automatic Labeler* is designed for rapid and precise application of front or front and back labels to containers of various sizes and shapes.

The newly developed *Model CH WORLD Semi-Automatic Labeler* is the last word in operating convenience, versatility and economy for applying single labels up to a rate of one per second.

See these 1940 Model World Labelers at the Show. Compare them with those you're now using or any others, for design, workmanship and performance.

BOOTH No. 203
at the
Tenth Packaging Exposition



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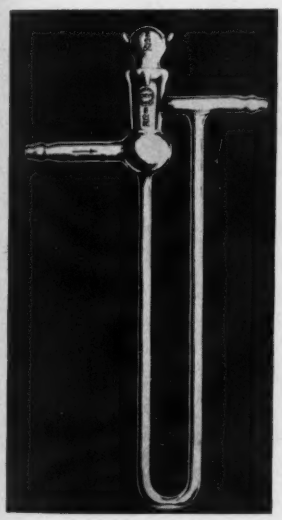
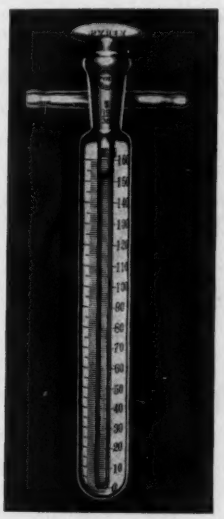
want? Yes—I forgot something—the belt is equipped with a reversible drive and since the legs are also adjustable, this versatile unit can be set up at an angle. Height adjustment ranges between 34″ and 54″. Length adjustment ranges between 12′ and 20′. Adjustments are made with a rack and pinion arrangement. The ends of this conveyor unit telescope.

The drive and belt take-up are mounted under the center of the unit and the whole conveyor is mounted on centrally located rubber tire wheels. This apparatus would certainly be useful in almost all packaging departments where types and styles of product change extensively and in which a high degree of flexibility must be maintained. This conveyor may also be used as a portable booster. The unit is made by J. R. Hooper Co., Beach St., Brookfield, Ill.

TWO NEW METERS

Two new low cost instruments for measuring the rate of flow of gases and for vacuum work have been recently announced by the laboratory and pharmaceutical division of Corning Glass Works, Corning, N.Y. The first is a new type of flow meter. Fabricated from Pyrex balanced glass, it is said to be of simpler, improved construction. It is completely self-contained and requires no extra parts. Four orifices approximately ¼, ½, 1 and 2 mm. are provided in a hollow stopper. Selection is made by turning the stopper to the desired orifice. Direction of flow is also indicated.

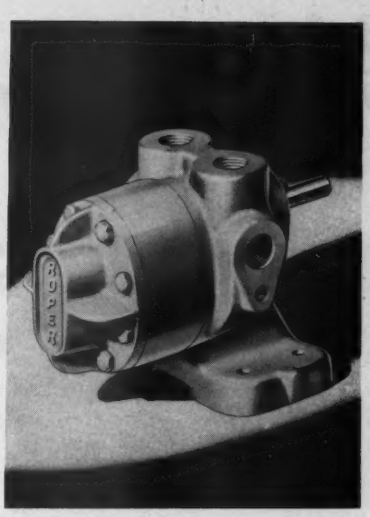




The new Pyrex manometer is claimed to be the most inexpensive so far introduced. It has heavy walls and a scale ranging from 0 to 160 mm. which is acid etched and red pigment filled. The manometer is available in two types, straight side arm, and "T" arm. Filling is fast and easy.

ROTARY PUMP

A new line of rotary pumps has just been announced by the George D. Roper Corp., Rockford, Ill. This new line includes pumps ranging from 1 to 1,000 g.p.m.



capacities at speeds up to 1,800 r.p.m. and against pressures up to 1,000 lbs. per square inch. At present 21 different drives and mountings are available ranging from ordinary foot, hub, and flange mounting heads to complete bedplate units for direct motor drive; gear reduction; flat or V-belt drive.

An outstanding feature of this new line is hydraulic balance. It equalizes internal pressure at all points and absorbs all shock or thrust from power end of drive shaft. Other features include your choice of spiral, spur, or herringbone gears; conventional packing box, spring loaded packing box, or mechanical seal; sleeve or roller bearings; built-in or external relief valve; eight different piping arrangements.

CORRECTION

In the January issue there appeared in these columns a description of the new Economic Machinery Co. labeler. But as so often has happened in the past, the photograph was put in one place and the description of the machine in another. It is most unfortunate that blunders so often occur in making up this column. We don't make up this department, so don't blame us. Blame the printer. But we knew that most of you engineering tycoons noticed that the picture of the machine was not next to it, but had been placed on the next page—that is, assuming you read that far.

RECORDS

Most of you at one time or another are confronted with the problem of designing special equipment which is built by outside organizations. In the course of such development work it is the customary practice to change tracings as discussions indicate the need for changes. Experience has taught me the value of never making changes without taking dated prints off the tracings so that a continuous record is available of development work. This is important not only for patent reasons but also as a means of preventing misunderstandings.

Under no circumstances ever let a tracing get out of your hands. A client of mine did this recently and if it

Have you seen it?

PACKAGERS DIGEST
OF S & S PACKAGING EQUIPMENT
Carton Filling and Sealing Machines . . . . Page 1
As sealing machines only or for filling by weight or volume and for sealing and for speeds up to 130 p.m.
Filling Machines . . . . . Pages 2 to 5
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Transwrap Packaging Machines . . . Pages 6 and 7
For forming, filling and sealing cellophane, pliofilm or other material packages taking the printed or unprinted web from the roll at speeds of 60 p.m. and up.
Bag and Envelope Fillers and Sealers . . Pages 8 and 9
For soft drink powder or for individual servings of chocolate powder, and for sealing bag liner in carton independently of flaps of carton.
Complete Packaging Lines . . . . . Pages 10 and 11
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Tight-Wrapping Machines . . . . . Page 12
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Have you received your copy of the Packagers Digest of Stokes & Smith Packaging Equipment? This new booklet, just off the press, gives a summary of the complete line of S&S Packaging Machines. Every user of packaging machinery should have it on file.

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hadn't been for the existence of a set of prior blueprints there would have been an acrimonious lawsuit. What happened was this: We had developed a special piece of equipment which was laid out in detail on tracings. For some inexplicable reason our client turned the tracings over to a packaging machinery builder. One of the engineers of this company after studying the tracings decided that a few minor changes, principally in dimensions, would improve the construction of the machine. In doing this he acted stupidly but in good faith. About three months later the machine was delivered and it didn't work worth a hoot. The machinery builder disclaimed responsibility being unaware of the alteration in the original tracings and produced the tracings to show that the equipment had been built strictly in accordance with the drawings. Fortunately we happened to have in our files a set of prints taken from the tracings before they were altered. Comparison of the two sets of drawings showed the differences and then the equipment builder's engineer recalled having made some slight changes because he, in all sincerity, thought the changes would save money for his employer and improve the construction of the equipment. Had it not been for the set of original blueprints, there would have been hell to pay.

This lesson is hard to learn because in our anxiety to get things done we all are prone to take short cuts. In making layout drawings it is particularly important to take off prints as changes are made. This is necessary for two reasons: first, if any bugs develop in the layout, the top executive or the department head who approved the proposed layout will sometimes welsh and say the layout was not executed in accordance with the drawings he approved; secondly, in the course of a prolonged study you very often will discard ideas which later prove to have been thoroughly feasible and if you haven't prints of the original ideas a lot of work has to be done over again.

IMPACT MILL

Asbury Research Developments, Wyncote, Penn., are offering a new type of mill applicable to the treatment of all types of emulsions and suspensions. The fluid impact mill is designed to act upon fluids by utilizing specially designed rotors to produce impact by means of centrifugal force. These rotors, operated in successive stages, divide the liquid materials into the form of a fine mist, the particles of which are driven by centrifugal action at tremendous velocity against impact rings designed to direct the fluid film so formed into the periphery of the succeeding rotor.

Because of the fact that no part of a rotor comes into contact with a stator, there can be no grinding type of action whatever. In consequence all mechanical energy is utilized in disintegrating material and not in the production of heat. No mixture has yet been processed in these mills which showed a temperature rise of more than two degrees C. during passage, even though no cooling mechanism was utilized. No adjustments are necessary and dimensional changes due to low or high temperatures have no effect on the operation of the mill. It can be operated at any tem-

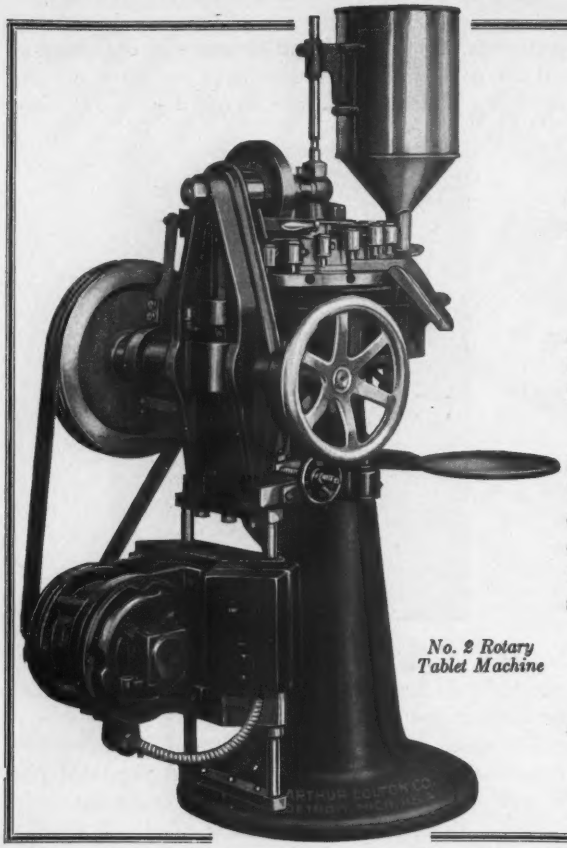
perature at which fluid treatment may be desired, ranging from that of liquid air to that of boiling mineral oil without any adjustment.

The applications of this new piece of equipment are numerous. Emulsions of mineral and vegetable oils as well as those of animal and marine origin are made easily. Multiple admission ports admit of feeding several materials at once, thus permitting the production of a finished emulsion in one continuous process. The multiple port feature also lends itself to the continuous production of uniform and finely divided pigments, organic and inorganic.

The dispersion of pigments, clays, and fillers can be carried out most successfully in the impact mill. Dyes in suspension seem to be broken down into the original uniformly sized micellae in which they were originally precipitated. This is particularly valuable help in the dispersing of tarry pigments which tend to smear out into flaky forms under usual grinding processes. The use of the mill is not limited to thin fluid mixes. Any material which will flow or can be pumped into the mill is a potential subject for trial. Cold creams, shaving creams, tooth paste and other types of drug and cosmetic products can be prepared or treated.

EQUIPMENT TESTING

Very often have we bellyached about the more or less prolonged period of time required to break in packaging equipment and we have pointed out that many of the bugs which develop in such equipment could have been anticipated had the equipment been adequately tested before shipment. One of the stock excuses of equipment makers is that the electrical current specifications available in their plants differed from those in the plant of the customer and that, therefore, all they could do was turn the equipment over a few times by hand to make sure that all bearings were free. This excuse always burns us up and we hear it



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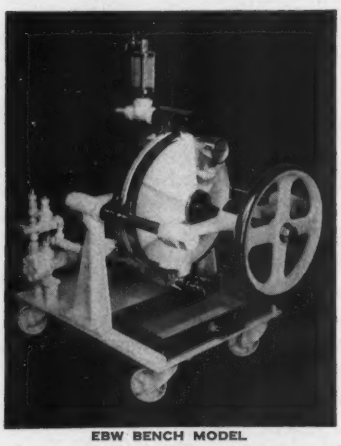

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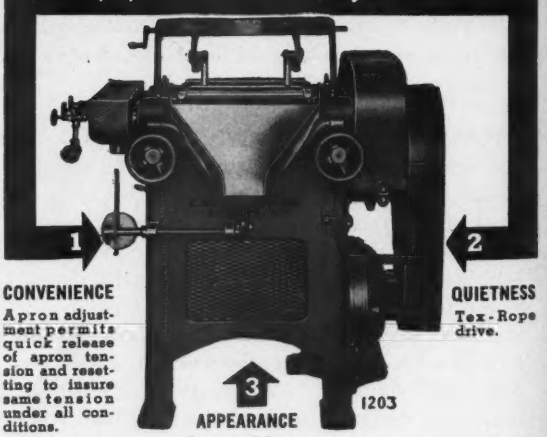

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more often that you would imagine. Equipment should always be run in, if necessary before the motors are mounted, by means of belts and pulleys. It seems to us that every equipment shop should be equipped with adaptable drives so that machinery can always be run in regardless of the type of its driving motors.

ECONOMIZER AND DEHUMIDIFIER

A recent development by the York Ice Machinery Corp., York, Penn., is a new line of commercial-sized economizer units and a new sectional dehumidifier for large air conditioning installations. The addition of the economizers provides a completely flexible line of com-

bination indoor cooling towers and water cooled condensers, whose capacity range covers almost the entire field of commercial applications. The new economizers are designed to produce more capacity for the same initial cost and to permit operation with more than one compressor. The largest of these economizers may operate with as many as four separate refrigerating circuits working simultaneously. This flexibility is obtained by providing separate coil sections within the units which may be connected in parallel or separately, depending on the needs of the customer. The models vary in size but they are identical in outward appearance, the difference being in the number of coil sections contained within.

The type "MC" dehumidifier is for large air conditioning installations where it combines the advantages of an air washer with the flexibility of a dry finned-coil air cooling unit. The combined effect of the finned coils and water sprays in the dehumidifier results in

efficient cooling and dehumidifying. This combination also has the advantage of being able to cool the air adiabatically as an air washer only, during periods of low wet bulb. The sectional nature of this equipment makes a great number of arrangements possible to fit the space available and the cooling load to be handled.

COLOR MATCHING

Face powder makers will be interested in the mulling device produced by C. E. Hoover, 1250 Sixth Ave., New York. This device is used for rubbing out samples of colored pigments to make certain that colors have been uniformly distributed. It consists of a couple of rotating discs between which the pigment is rubbed. Developed for the paint, printing, and dye trades, this machine should be applicable to face powder manufacturers also.

MUSICAL PLANTS

A lot of twaddle has been published about music as a means of increasing efficiency in factories. Psychologists and time study men together have shown that appropriate rhythms step up production. But they and their readers often draw the false conclusion that what will work superbly in one plant will work in all of them. They fail to evaluate the effect of extraneous noises on the worker's nerves. In hand packaging departments in which no machinery is used, a musical program is pleasant even though it has no effect whatever on production or fatigue. But when music is mixed with blatant mechanical noises, the effect is nerve wracking.

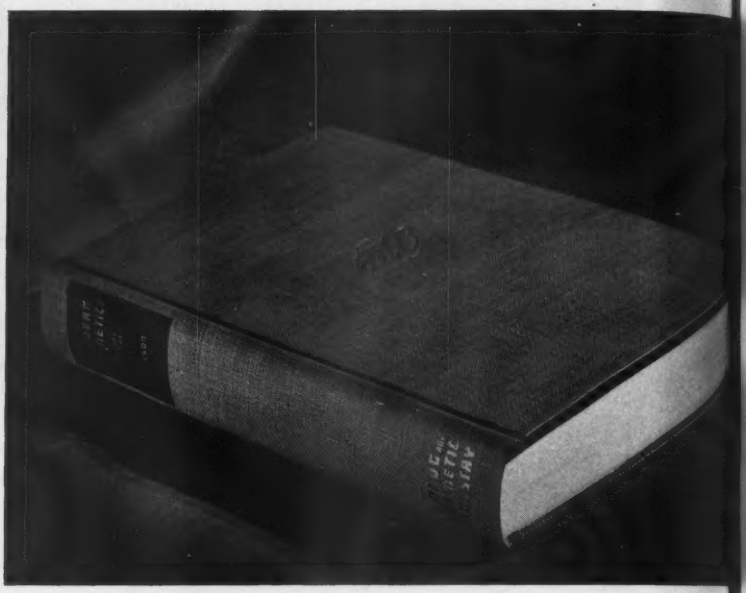
Some time ago we visited a highly automatic packaging plant in which loud speakers blared what was supposed to be music. In order to hear the music, it had been necessary to increase the volume of the loud speakers to submerge the noise of the packaging equipment. The effect was horrible. A short time later the management of the plant abandoned the idea. We believe in music during mid-morning and mid-afternoon rest periods because music during such periods is restful and relaxing.

COSMETIC FORMULAS

MODERN COSMETICS

by

FRANCIS CHILSON



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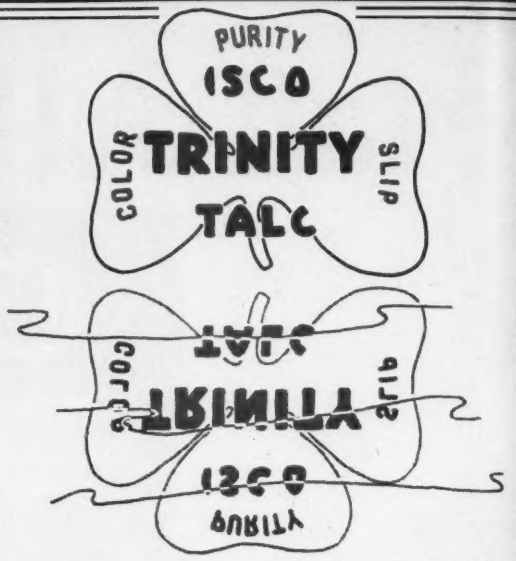

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WATER-IN-OIL EMULSIFIERS

Water-in-oil emulsifying agents are used extensively in the manufacture of ointments and cosmetics. Among the more widely used emulsifying agents for these purposes are waxes such as lanolin spermaceti, and beeswax; polycyclic alcohols such as sterols; and aliphatic alcohols of high molecular weight, some of which are components of certain waxes. Of these, lanolin and waxes were used by the ancients. More recently ointment bases of high water absorptive power have been introduced, and are usually described in rather vague terms as consisting of certain alcoholic components of lanolin combined with petrolatum. Several patents have been issued on methods of obtaining components of lanolin with unusual hydrophylic properties, of which those granted to Lifschutz, Frick and Barnes are examples. Cholesterol has been recommended frequently as a useful adjunct to petrolatum for increasing its ability to absorb water, and for enhancing its value from a therapeutic or cosmetic standpoint. Blatz, some years ago, showed that cetyl alcohol when mixed with petrolatum produced an ointment base capable of absorbing 60% to 70% of water.

The earlier investigations of the chemical components of lanolin by Schulze and by Darmstaedter and Lifschutz indicated that the unsaponifiable portion consisted principally of cholesterol, iso-cholesterol and aliphatic alcohols such as ceryl alcohol. More recently iso-cholesterol has been resolved into agnosterol, $C_{30}H_{48}O$, and lanosterol, $C_{30}H_{50}O$.

Lifschutz has shown the influence of certain alcoholic componenes of lanolin as water-in-oil emulsifying agents when used with petrolatum. He has also pointed out that the water-absorptive property of lanolin is dye to the presence of from 5 to 8% of free alcohols. He recommends a mixture of 3% of these alcohols with petrolatum as an ointment base which will absorb from 300 to 400% of water. Casparis and Meyer have determined the maximum amount of water which mixtures of several different waxes and alcohols with petrolatum and lard are capable of absorbing.

Despite the extensive literature relating to lanolin and its use and the use of its components in hydrophylic ointment bases, some confusion continues to exist. Accordingly, an investigation was undertaken to ascertain with some degree of certainty what components of lanolin are responsible for its ability to absorb water, and, if possible, to develop an easily obtainable hydrophylic emulsifier which when mixed with petrolatum would produce a water-absorbent ointment base for general use.

Anhydrous lanolin was saponified by three different methods: (1) that of Doree and Garratt involving the use of sodium ethylate in anhydrous ether; (2) heating the lanolin with alcoholic potassium hydroxide under a reflux condenser during twelve hours; and (3) by a cold method not previously described for the saponification of lanolin. The latter method appeared to be the most convenient and quite satisfactory since it yielded as good results as the first method. The unsaponifiable portion was separated from the soaps and resolved into four fractions, the first, consisting of a mixture of aliphatic alcohols, the second, of the so-called "iso-cholesterol," the third, of cholesterol, while the fourth fraction was an amorphous mixture from which no crystalline material could be isolated. The partial separation of the unsaponifiable portion was accomplished by modifications of the methods described by Doree and Garratt, Heiduschka and Nier and Kuwata and Katuno. Mixed amyrins were obtained from Manila Elemi Gum, and resolved into α- and β-forms through the benzoates by the method of Horrmann. Cholesterol esters of lauric, palmitic and stearic acids were prepared by the procedures described by Page and Rudy. The cetyl alcohol used was obtained from the Eastman Kodak Company. The water-absorbent powers of these various substances in different concentrations in white petrolatum were determined. Amyrin was included in the list because of the possibility that it might develop that there is a close chemical relationship between it and "isocholesterol."

TABULATION OF EMULSIFYING POWER OF SOME WATER IN OIL EMULSIFYING AGENTS WITH PETROLATUM

Emulsifying Agent in White Petrolatum	*Per Cent of Water Emulsified*
Cholesterol 3%	250%
Cholesterol 3%+Cholesteryl Acetate 3%	500%
Cholesterol 3%+Cholesteryl Laurate 3%	600%
Cholesterol 3%+Cholesteryl Palmitate 3%	700%
Cholesterol 3%+Cholesteryl Stearate 3%	800%
Cholesterol 3%+Spermaceti 3%	500%
Cholesterol 3%+White Wax 3%	500%
Spermaceti 3%	100%
Iso-Cholesterol 3%	300%
α-Amyrin 2%	50%
β-Amyrin 2%	50%
Mixture of Aliphatic Alcohols 3%	400%
Cetyl Alcohol 3%	75%
Total Unsaponifiable from Lanolin 5%	350%
Unsaponifiable 4%+White Wax 4%	600%

Cholesterol esters when used alone have no emulsifying action.

The efficiency of the amyrins and isocholesterol is not appreciably increased when combined with their esters or with waxes. *J. L. Powers, H. B. Leask, R. S. Warner, J. Am. Pharm. Assn., vol. 29, p. 14.*

Are you having any trouble with your SOAP?

Over 50 years ago, the first Neutral Powdered White Soap was introduced to the manufacture of cosmetics and proprietary remedies by the House of Hopkins. Though perfected through the years by various technical improvements, Hopkins' Rajah Brand Neutral Powdered White Soap is today made under *the same original process.* For completely dependable uniformity, for perfect *performance,* standardize on Hopkins' Rajah Brand Powdered Neutral White Soap. You will greatly appreciate its extreme snow-whiteness, thoroughly neutral taste, its complete freedom from free alkali, low moisture content, and its very low residue of alcohol, water and sodium carbonate. Hopkins' Neutral Powdered White Soap will not turn rancid or harden on the shelf. Try it yourself.

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ANTISEPTIC OINTMENTS

Gershenfeld and Brillhart have studied the efficiency of bactericidal agents in different ointment bases. The agents used were ammoniated mercury (10%), mercuric chloride (0.1%), and phenol (2%), while the bases were of three types described as synthetic waxes, oxycholesterin, and U. S. P. XI and older types. Synthetic waxes included glyceryl monostearate, propylene glycol monostearate, and glyceryl monostearate with an acid emulsifying agent; oxycholesterin bases used were a variety of lanolin absorption bases well known to the cosmetic industry; U.S.P. XI bases included plain benzoinated lard and the U.S.P. XI simple ointment while others included benzoinated lard with 2% cholesterin and white petrolatum with 2% cholesterin.

The agar plate and agar cup plate methods were employed in the tests, using Staphylococcus aureus as the test organism.

"Comparing the older and the U.S.P. XI bases with the newer bases, a wide variation was noted in that the inhibition zones of the older types and U.S.P. XI bases were considerably smaller. This may be explained by the fact that the newer bases hold much more water due to the presence of emulsifiers, and that these emulsifiers efficiently lower interfacial tension and permit diffusion more readily through the agar. The water in turn carried the medicinal agent with it, producing a larger inhibitory zone in practically a direct ratio.

"One of the oxycholesterin bases gave a greater inhibitory zone than the others in its own group and even exceeded some of the synthetic wax group. It is to be noted that this particular ointment contained a high percentage of water and in addition there was added 9.8 per cent. of glyceryl monostearate. (This probably transformed the water-in-oil to an oil-in-water emulsion, similar to those in the synthetic wax group.)

"The addition of 2 per cent. cholesterin did not improve the older bases so far as increasing the inhibition zone."

We can draw the conclusion that the authors have failed to draw, namely, that oil-in-water emulsions are better than water-in-oil emulsions which in turn are superior to anhydrous salves as carriers for water-soluble antiseptic substances. *Am. J. Pharm.*

CARBOWAX

Although "self-emulsifying" waxes have been industrially available, "Carbowax" 1500 and "Carbowax" 4000 are the first products possessing the unique property of dissolving in water to form a solution that is as clear and transparent as water itself. "Carbowax" 1500 is a soft, translucent solid, melting at 28-30° C., and has the consistency of a low melting petrolatum. The higher melting "Carbowax" 4000 resembles paraffin in appearance and feel. It melts at 50-55° C. Aqueous solutions of various viscosities may be prepared by adjusting the concentration of the wax. For example, solutions containing 10-20% of "Carbowax" are similar to glycerine in viscosity. At higher concentrations, thick, syrupy solutions may be obtained.

In contrast with complete water solubility is the unexpected solubility in aromatic hydrocarbons such as benzol and toluol. Since these compounds resemble natural waxes in appearance and feel, yet possess a solubility in a much wider range of solvents, many applications are suggested for them.

"Carbowax" 1500 is a soft, translucent, odorless solid, melting at 28-30° C. exhibits, to a slight degree, the property of absorbing moisture from the atmosphere. It is, however, much less hygroscopic than glycerin and ethylene glycol. Upon exposure to humid air, "Carbowax" 1500 takes on a moist appearance.

"Carbowax" 1500 offers possibilities as a plasticizer for such materials as casein, gelatin, glue, cork and special printing inks. Taking advantage of the low vapor pressure, it also offers possibilities as sizes, binding agents, softeners, lubricants, humectants, preservatives and adhesives, especially for textiles and other porous materials.

"Carbowax" 4000 is a hard, translucent solid, melting at 50-55° C. resembles paraffin in appearance. Yet, it has the unique property of being completely water soluble. Many applications, suggested for "Carbowax" 1500, should also find use for "Carbowax" 4000, taking advantage, however, of those differences in physical properties such as higher melting point and lack of hygroscopicity. In contrast with "Carbowax" 1500, the higher melting "Carbowax" 4000 does not become moist in appearance upon exposure to humid air.

Animal studies indicate that these waxes are harmless for external applications. *Carbide and Carbon Chemicals Corp., New York.*

PERFUME DISPERSING AGENT

A new dispersing agent, Stago CS, is now being offered to the trade for the purpose of making perfume oils soluble in water. The product is an amber colored, practically odorless liquid. It is very stable, neutral in reaction, and does not hydrolyze when diluted with water.

Stago CS possesses the property of being miscible with perfume bases, essential oils, higher phenolics and many other water insoluble organic derivatives. After being mixed with the desired chemical or perfume base, the resulting product, upon dilution with tap water in any proportion, produces a clear solution which remains clear indefinitely. It has been found that one part of perfume base requires from two to six parts of Stago CS to obtain this clear solubility in water.

The dispersing agent undergoes no hydrolysis in water, is miscible with perfume bases and higher phenolics, and gives clear dispersions in water, making it an important reagent for use in the preparation of theatre sprays, liquid soaps, shampoos, astringents, hair tonics, disinfectants, bath and shower oils.

Stago CS possesses remarkable water softening properties. This feature, together with its ability to disperse clearly in water any essential or perfume oil, makes it an ideal base for the preparation of bath and shower oils. For example, if a bath oil is made consisting of:

4 parts Stago CS

1 part Siberian Pineneedle Oil

3 parts Water

and one teaspoonful, or its equivalent, of the above formula is added to a bath tub full of water, the water is softened. The formation of the insoluble soaps of calcium and magnesium is prevented, thereby eliminating the objectionable "bath tub ring." The proportion of perfume oil in the above formula can be greatly reduced, thereby lowering the cost materially without affecting the efficacy of the finished bath oil.

Stago CS is also an efficient wetting agent. Because of this property, it is being used in the wetting and dispersing of certain pigments. *Borne Scrymser Co., 17 Battery Place, New York.*

SOAPLESS SHAMPOO MATERIAL

Product GL-4C is a brown, clear liquid, having a specific weight of 1.128. It contains compounds of protein degradation products with fatty acids as active ingredients. These compounds resemble the material of the hair and body most closely in their chemical composition and are therefore said to be physiologically beneficial. During the past few years, according to the General Drug Co., the wide practical use of shampoos made with Product GL-4C has shown clearly that this material does not cause excessive dryness of the hair.

If one part of Product GL-4C is diluted with one or two parts of ordinary water and ½ per cent. of perfume added, this gives a soapless shampoo with the following properties: The pH of the mixture is 6, slightly acid; it is completely stable to lime salts in hard water; it foams quickly and easily; the dirt, but not the natural oils, is completely removed from the hair; the permanent wave is not affected; the hair is left with a fine gloss. Complete information may be obtained from the General Drug Co., 170 Varick Street, New York.

Perfumers Shelf

RARER ESSENTIAL OILS

Cedarwood East African

Dumont succeeded in obtaining 2.3 per cent. East African cedarwood oil by steam-distillation of small shavings of the wood of Juniperus procerus Hochst., which was only 3 months old. The wood is, of course, well known to the lead pencil industry, but the oil has not really found any extensive use in spite of its marvellous fixative qualities and attractive odor. The oil is recommended in the following types of composition: Amber, Chypre, Crepe de Chine, Mitsouko, Fougère, Lierre, New Mown Hay, Trèfle, Violet, Reve d'Or, Zibeline, etc.

In the fraction boiling at 173° to 178°, the essential oil of Juniperus procerus Hochst. contains 3.7 per cent. l-limonene, identified through the tetrabromide (m.p. 104.5°); the oil also contains 62.5 per cent. cedrol (m.p. 84°). The fraction 260° to 263° contained the sesquiterpene cedrene (identified by conversion into cedrone, boiling at 148° to 151° at 11 mm.) in the proportion of 15.4 per cent. The following constants were determined: D^{15} 0.9574; α_D—35° 40′ to 43° 20′; n_D^{20} 1.490 to 1.5127; acid value 1 to 3.34; ester value 1.3 to 6.85; soluble in 5 to 8 per cent. of 95 per cent. alcohol.

Citrus Medica

In French Guinea, the Campagnie Africaine isolates an essential oil from the leaves of Citrus medica with a pleasant fresh, floral odor, somewhat reminiscent of lemon.

The oil is excellently adapted for Eau-de-Cologne compositions, also as the top-note in extracts of the type of Chanel No. 5, Royal Briard, Crepe de Chine, Chypre, Fougère, Mitsouko; as well as in soap compositions of the palm and olive type and the already mentioned odors.

The oil contains 40.7 per cent. total alcohols and 29.2 to 33.5 per cent. aldehydes (calculated as citral). The leaf oil of Citrus medica possesses the following constants: D^{15} 0.8645 to 0.8655; α_D+55° to + 56°30′; n_D^{20} 1.4772; acid value 0.9 to 1; ester value 22.4 to 24.2; ester content 7.8 to 8.5 per cent.; ester value after acetylation 133; soluble in 2.4 to 5.5 volumes of 85 per cent. alcohol and over.

Costus Oil

An oil with a really marvellous odor, but also one of the most costly, is costus root oil from Saussurea lappa Clarke (Apoltaxis lappa Decaisne: Aucklandia costus Falconer). Steam distillation of the roots yields 0.3 to 1 per cent. of essential oil. S. Ghosh, N. R. Chatterjee and A. Dutta report a yield of 1.5 per cent. by steam distillation.

The oil from old roots generally possesses a nauseating goat-like odor, while from fresh roots it is strongly reminiscent of elecampane oil, with a violet-like subsidiary note, presumably arising from the lactones present. The oil may find application in the following types of composition: Maderas de Oriente, Maja, Goyesca, Tropiques, Tendres Nuits, Chanel No. 5, Cuir de Russie, Normandie, Arpège, Bellodgia, Nuit de Noël, Sous le Vent, Chinchilla, Cassandra, Bamboo, Zibeline, Shanghai, Kobako, Egoiste, Crepe de Chine, Bois Dormant, Vertige, Reve d'Or, etc.

According to Gildemeister, costus root oil has approximately the following composition: Camphene (0.4 per cent.), phellandrene (0.4 per cent.), a terpene alcohol (0.2 per cent.), α-costene (6 per cent.), β-costene (6 per cent.), aplotaxene (20 per cent.), costol (7 per cent.), dihydrocostus lactone (15 per cent.), costus lactone (11 per cent.), and costic acid (14 per cent.).

The constants of costus root oil are as follows: D^{15} 0.940 to 1.009; α_D+13° to + 27°; acid value 8 to 36; ester value 55 to 114; ester value after acetylation 105 to 162; soluble in 1 to 5 volumes of 90 per cent. alcohol. The oil is soluble to the extent of 33 to 52 per cent. in 5 per cent. caustic soda.

Cymbopogon Oils

The Cymbopogon group includes, of course, such well-known oils as palmarosa, citronella, lemongrass and gingergrass, but there are other and lesser-known oils which also enter into this group. One interesting oil, for example, is that from the grass of Cymbopogon afronardus Stapf. It resembles palmarosa oil in odor and is isolated in a yield of 0.75 per cent.

This oil actually finds application in a wide variety of compositions and can be particularly recommended for Rose Synth., Lily-of-the-Valley, Lilac, Fougère, Chypre, Amber, etc.; also in the corresponding soap oils as well as in aubepine, lanolin, cold cream, palm and olive and similar soap compositions.

According to a communication of the Imperial Institute, the oil of Cymbopogon afronardus Stapf is composed of 18.2 per cent. of an ester with the formula $C_{12}H_{20}O_2$, 84.2 per cent. total alcohols $C_{10}H_{18}O$, 3 per cent. aldehydes or ketones. The following constants of the oil have been determined: $D_{15.5}^{15.5}$ 0.8940; α_D^{19} —0.17; n_D^0 1.4755; soluble in 1.7 volumes of 70 per cent. alcohol; acid value 1.4; ester value 52; ester value after acetylation 249.1.

Likewise of interest is the essential oil of Cymbopogon exaltatus, introduced to the market by the firm of Plaimar Ltd., Perth, Western Australia. This is a pale-yellow oil with the odor of gingergrass oil but with a decidedly finer aroma. It finds application in soap oils where a modern and interesting note is aimed at. Here it can be used to a considerable extent (15 and even 20 per cent.) but its use is somewhat limited in perfumery proper. It is adaptable in the first place to perfumes of the Floramye type, and also to some floral perfumes for building up an interesting odor.

AN AMERICAN THEME

NOT in two decades has the American perfumer had the opportunity that exists for him today—the opportunity to develop and sell his product on a purely American appeal. Even before the present outbreak in Europe, strong indication that Miss and Mrs. Consumer's interest in this direction was ripening was evidenced by the introduction and instant success of certain lines built around well-conceived American themes. Now, with lessening influence from abroad, the task of developing a fuller appreciation for the really fine creations of our own perfumers should be far less difficult than before.

In expressing this thought, we do not overlook the importance of Europe's contributions to our basic knowledge of perfuming, nor do we deny our industry's dependence upon many of her superb raw material offerings. Nor, again, do we wish to imply that the finished creations of her leading houses will be any the less welcome in our markets. What we do wish to convey to our own manufacturers is that they are now a part of a mature industry, possessed of ability, experience and the creative capacity to stand firmly on its own; that we do not have to lean upon the inspiration, the styling or the nomenclature of European manufacturers for our success. The potential demand for *good* American-made, American-styled perfumes, in our opinion, is tremendous. Why shouldn't we apply our skill and originality to being just ourselves and so take advantage of that demand?

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Some of the intriguing odor-types available in this series are listed in the accompanying column. There are also other florals and French bouquets. In each, the floral or bouquet note dominates while the cologne character, skilfully blended, gives refreshing lift and zest. The full effect is one every perfumer, and what is more important, every customer will appreciate. So, if you'd follow the fashion this season, let your colognes **go modern!** Write us without delay for prices and further details.

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Your testing and comparing the quality and cost of these Seillans products NOW will serve to advantage when next ordering your requirements of these indispensable perfume materials.

ABSOLUTE of ROSE

The manufacturing season for this magnificent Oil coincides at our French factory with the harvest of Neroli. May we discuss with you your immediate requirements of Seillans ABSOLUTE of ROSE?

The constants of the oil are as follows: $D^{15.5}$ 0.9299; α_D —18° 22′; n_D^{20} 1.479; ester value 60.8; ester value after acetylation 138.7; soluble in 2.5 to 24 parts by volume of 70 per cent. alcohol.

A pale-yellow essential oil is isolated in Japan, according to T. Kariyone and S. Majima, in a yield of about 1 per cent., by steam-distillation of the flowering plant of Cymbopogon Georingii Honda. Its odor is strongly reminiscent of that of elemi oil. The oil finds chief application in heavy perfumes of such types as Crepe de Chine, Chypre, Fougère, Amber, Liu, etc., in which it can be satisfactorily incorporated. In the corresponding soap oils, additions of up to 10 per cent. can be made without any difficulty, with consequent definite improvement in the odor.

This Japanese oil is composed of approximately 57 per cent. elemicin, together with camphor, borneol and cadinene. Its constants are: D_{20}^{20} 0.9585; α_D^{13} —34.96°; n_D^{17} 1.52128; acid value 0; saponification value 12; saponification value after acetylation 30.6; methoxy content 25.42 per cent.

Another little-known oil is that of Cymbopogon schoenanthus Spreng., the so-called camelgrass oil. In the industry of odorus materials it does indeed find application, but only very rarely in the perfume industry itself. In odor it is strongly reminiscent of elemi oil.

In practice, camelgrass oil may be used in nearly all household soaps in large proportions, especially in admixture with safrol, nerolin, yara-yara and heliotropin or coumarin. In perfumery proper it is a good nuanceur for Trèfle, New Mown Hay and Fougère.

The constants of a freshly distilled Egyptian camelgrass oil, were as follows: D^{15} 0.914; α_D +34° 65′; n_D^{20} 1.477; acid value up to 1.2; ester value 3 to 5; b.p. (760 mm.) 170° to 248°. The oil has the following composition: d-α-phellandrene (the fraction with b.p. at 766 mm., 170° to 174°; α-nitrosite with m.p. 113° to 114° and β-nitrosite with m.p. 105°; phellandrene content 58.56 per cent.). The fraction boiling at 175° to 180° contains about 5 per cent. dipentene, identified through the tetrabromide (m.p. 125° to 126°). Acetylation of the oil yielded an oily material with a boiling point of 90° to 94° under 5 mm. which, in turn, on saponification of the ester fraction, gave an oil with b.p. (767 mm.) 225° to 228° and a naphthyl urethane of m.p. 146° to 147°, and which was identified as perilla alcohol, $C_{10}H_{16}O$. Owing to lack of time it was impossible to work up the oil further.

The oil of Cymbopogona clandestinus Stapf, indigenous to India and Burma, is closely related in odor to gingergrass oil, but is not so powerful. It has the advantage, however, of being more easily soluble than gingergrass oil. It may be used extensively in the soap industry, where it can be incorporated with compositions of the palm and olive and Fougère types to the extent of 15 to 20 per cent. But it should be used more cautiously in perfume oils of the Chypre and Fougère types, etc., because its odor is penetrating and difficult to cover.

Very little is so far known about its constituents. It contains about 18 per cent. aldehydes or ketones, and also (to judge by the odor) dihydrocuminic alcohol (perilla alcohol). The physical characteristics of the oil are as follows: D^{15} 0.9240 to 0.9319; α^D +45° 38′ to +45° 96′; n_D^{20} 1.47769 to 1.495; soluble in 2.1 volumes 70 per cent. alcohol, and in 5.5 volumes and more 60 per cent. alcohol; acid value 0.8 to 3; ester value 11.3 to 12.1; ester value after acetylation 167.1 to 168.9 (which would indicate a total alcohol content of 53.2 per cent. $C_{10}H_{18}O$).

Culilawan Oil

Another lesser-known essential oil possessing an attractive odor is culilawan oil, from Cinnamonum culilawan. It is isolated in a yield of 4 to 5 per cent. by steam distillation of the comminuted bark, and is characterized by a pleasant clove-like to cajeput-like odor.

The oil can be recommended for use in soap compounds, where it should prove particularly useful for the production of a powerful odor. But it is only to be used in perfume oils after rectification, when it is effective in carnation complexes, especially in combination with isoeugenol and other normal constituents of carnation compositions. *H. M. Dumont, S. P. C.*

DEXTRO-LINALOL

Dextrol-Linalol is a new product being offered to perfumers by Ph. Chaleyer, Inc., New York. It is the main constituent of oil of coriander and is also found in neroli oil; it is more lasting than the regular levo-lianlol. It has a very sweet character and makes an ideal addition to lilacs, lily-of-the-valley, rose, and other bouquets.

HYDROGENATED OILS

Commercial hydrogenated oils were studied to determine their suitability for ointments as far as stability to rancidity, consistency and water retention was concerned. None of the samples of hydrogenated vegetable oils developed more than a trace of rancidity when kept at body temperature in the dark in unstoppered glass tubes. Lard and partially hydrogenated lard, however, became distinctly rancid under the same conditions.

In sunlight all of the partially hydrogenated oils developed rancidity to some degree, but less rapid than lard. Hard hydrogenated oils did not develop rancidity as rapidly as partially hydrogenated oils. Hydrogenated oils of different manufacturers did not deteriorate exactly in proportion with the iodine value, but hydrogenated cottonseed oils of various iodine values prepared from the same batch of oil deteriorated in relationship to the iodine value, the lower iodine value oils being more stable.

Of all of the commercial partially hydrogenated oils, sesame oil was superior from the standpoint of rancidity. Samples of the same batch of oil hydrogenated to various degrees indicated that it was much more stable than hydrogenated cottonseed oil of the same iodine value.

The data on water retention showed lack of uniformity with samples of different manufacturers. None of them retained as much water as hard hydrogenated castor oil with the exception of coconut oil containing lecithin which retained about five times as much as other coconut oils without lecithin. With the exception of partially hydrogenated lard, none of the partially hydrogenated oils retained as much water as partially hydrogenated castor oil. *G. W. Fiero, J. Am. Pharm. Assoc. vol. 29, p. 18.*

BERGAMOT OIL CONSTITUENTS

A large quantity of coumarin was extracted from oil of bergamot. The extractive consisted primarily of bergaptin and in addition, two new nonphenolic coumarin compounds were isolated from the petroleum ether solution. The first nonphenolic coumarin extract resembled very closely the compound limettin; the second compound was colorless, soluble in methyl alcohol potassium hydroxide solution from which it could be recovered without any change. This compound is almost identical with bergaptin and for this reason it was named bergamottin. It is chemically the geranyl ether of bergaptol. Geranium oil is present in bergamot oil in very small quantities; however, it contains large quantities of linalool, an isomer of geranium oil. Bergamottin is optically inactive as it is not a linalool derivative but a geranium oil derivative. Linalool is optically active because its structural formula contains an asymmetric carbon atom. *E. Spath and P. Kainrath. Ber. deut. keram. Gesell., vol. 70, p. 2272.*

CASEIN BOOKLET

The Casein Company of America, Bainbridge, N. Y., has just released a booklet describing Protovac modified casein and caseinate products. These modified caseins and caseinates have new and different properties due to the manufacturing process used and are therefore of interest to many trades and industries. They outgrew the laboratory stage and entered commercial production several years ago and just recently have been given the name "Protovac" to distinguish them from older casein products. Copies of the booklet may be obtained by writing the company.

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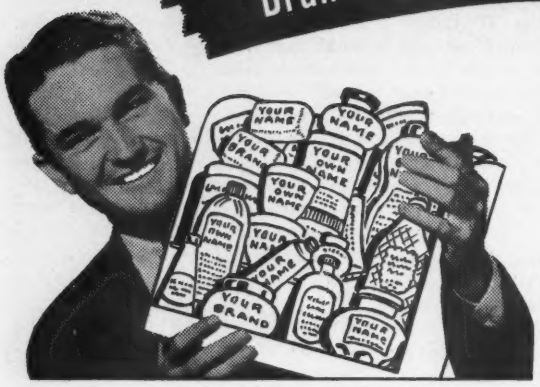

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ORAL TREATMENT OF DIABETES

Discovery of a substance that in laboratory investigation has reduced blood sugar in rabbits and monkeys and in a few cases in diabetic individuals was announced by Dr. J. B. Collip, head of the Biochemistry Department at McGill University.

The substance, prepared from a pituitary tissue, is given by the mouth. If proven effective, it would eliminate the mental discomfort and physical suffering caused by repeated injections of insulin in treatment of diabetes.

Dr. Collip, writing in The Canadian Medical Association Journal, made it clear, however, that research had not reached the stage where the new substance could be used in treatments. He reported that research work was being intensified along lines opened up by the initial discoveries.

"The results that have been obtained in the early stages of this investigation have been so encouraging that this preliminary report of them is being made," wrote the internationally known biochemist, one of the co-discoverers of insulin.

According to Dr. Collip's report, the substance is a "pituitary extract prepared from the primary alcoholic extract of prime whole gland tissue." Evidence that the extract had a "profound effect upon carbohydrate metabolism has been obtained, but the significance of this is yet to be determined," he said.

The report said no experiment had been a comprehensive one in any sense, but a lead had been established from the preliminary experiments, making it possible to plan and carry out experiments both on diabetic patients and on animals. Full significance of the observations already made would thus be determined.

SULFANILAMIDE AND ABSCESSES

Success in the treatment of abscessed teeth with sulfanilamide was reported by Dr. Fred R. Adams, of New York, at the Greater Philadelphia Dental Meeting in Philadelphia.

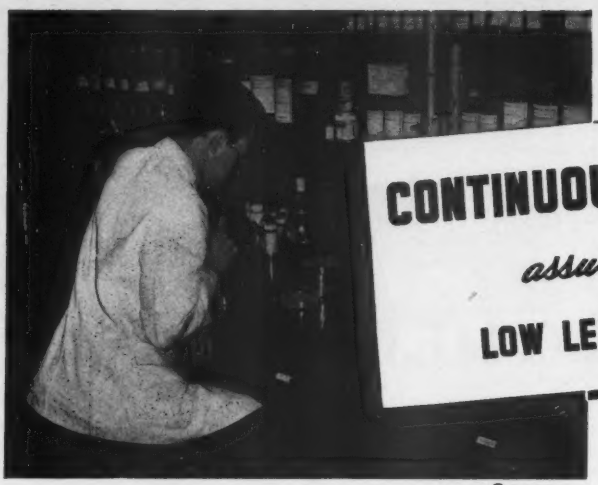
One injection directly into the abscess of a hot sulfanilamide solution killed all the trouble-making germs in every case but two, Dr. Adams reported. One case required two such treatments and another, three. Some of the abscesses that were cleaned up in one treatment had persisted for 10 years. X-ray pictures of these cases showed that after a few months new bone had grown to fill the area formerly occupied by the abscess.

Heating the sulfanilamide solution for treatment is important, Dr. Adams emphasized. A stronger concentration of the drug can be obtained in hot water and the heat reenforces the chemical's action on the germs.

This method of using a hot sulfanilamide solution for irrigation should, in Dr. Adams' opinion, be useful in treating infections in other parts of the body, such as sinus infections and the bone diseases osteomyelitis and osteitis and in cellulitis involving bone. *Science News Letter.*

ANTISEPTICS

The present study emanated from Hartman and Schelling's desire to find a substance of high bactericidal activity and low tissue toxicity to be used in conjunction with tannic acid in the treatment of burns. Many carbocyclic derivatives have been synthesized and have been proved to be highly effective antiseptics, but the authors wish to emphasize only two (dichloro-hexyl resorcinol and hexyl chloro-m-cresol), since only these have received extensive clinical trial as well as exhaustive laboratory tests. These compounds are heavy, colorless liquids or white solids, are practically odorless and are sparingly soluble in water. Dichloro-hexyl-resorcinol and hexyl chloro-m-cresol are unusually effective bactericidal substances, especially against staphylococci, streptococci, pyocyaneus and the gram-negative bacilli when their solutions are acidified to p_H 3 with hydrochloric acid or other acids. Toxicity, both locally and systemically, is comparatively low, so that danger from absorption or ingestion of 1:1,000 solutions is negligible. A highly satisfactory performance in an extended clinical trial coupled with laboratory tests showing low toxicity for tissue cells and unusual effectiveness against bacteria indicates that these substances are the most acceptable general antiseptics. *Am. J. Surgery, vol. 46, p. 460.*



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ANGINA TREATMENT

Clerc and Sterne direct attention to a group of chemical substances capable of influencing certain anginal crises. They cite studies on 1262 F, the diethyl-aminoethoxy-2-diphenyl, in which remarkable efficacy is combined with relatively low toxicity. It unites the antifibrillatory properties of quinic substances and the beneficial effect of theophylline on the coronaries, but it does not have a depressive action on the heart. The diethyl-aminoethoxy-2-diphenyl is administered by mouth. The individual dose is 0.05 Gm. and the daily dose amounts to from 0.15 to 0.2 Gm. It is well tolerated, even by subjects with severe cardiac and renal changes. It exerts a remarkable influence on the pains of the anginal type. It proved effective in fourteen of nineteen cases of angina pectoris. Its action was especially favorable in the cases of angina pectoris in which severe electrocardiographic changes existed, which indicated coronary involvement. Doubtless the causal lesion is not removed, but its troublesome effects are attenuated or perhaps forestalled. The medication is purely symptomatic and the duration of the influence may vary. Generally the administration of the diethyl-aminoethoxy-2-diphenyl must be continued for several months; the doses are gradually reduced until they are stabilized at about 0.1 Gm. a day. Three times it was possible to interrupt the treatment without reappearance of the attacks. Some patients were treated in this manner for from six months to a year. Four times, on the other hand, the efficacy became exhausted, after having been highly satisfactory at first; the attack recurred at the end of several weeks. To avoid this, it has been suggested that the treatment be administered in series of increasing and decreasing doses and if possible with interruptions. Even if the medication is continued for more than a year, harmful effects are absent. *Presse Med. vol. 47, p. 1517.*

SYNTHETIC SEX HORMONE

Details are now available of a synthetic substance which produces the pharmacological effect of oestradiol, the natural follicular hormone of the ovary. The substance is triphenylchloroethylene.

The duration of its action, when given orally, approximates to that of an equal weight of oestradiol benzoate or stilboestrol, but given subcutaneously the duration of action is stated to be about three times that of the former, and five times that of the latter compound. In animals its toxicity has been shown to be extremely low. It is administered in those conditions that respond favorably to the natural follicular hormone of the ovary.

According to the makers (Imperial Chemical Industries, Ltd., Dyestuffs Group) triphenylchloroethylene tablets (each containing 200 mgm.) are given orally after meals, and as many as nine daily may be administered without toxic effects being produced. Ampoules, each containing 250 mgm., dissolved in 5 mils. of sesame oil, may be injected at the rate of two, a week apart, followed by a third three weeks later: subsequently they may be given at three to four weeks' interval. The chemical precipitates on standing, but it can be redissolved by immersing the ampoule in hot water at about 75° C. for 15 minutes.

Clinically satisfactory results have been reported in the treatment of amenorrhoea (total dosage 12 to 16 gm.), atrophic vulvo-vaginitis, menopausal symptoms, and for promoting the inhibition of lactation. One case of atrophic rhinitis greatly improved following a nasal spray with triphenylchloroethylene in oil.

NATURAL VITAMIN K CONCENTRATE

Naturally occurring vitamin K, the anti-hemorrhagic factor, obtained from alfalfa and dissolved in corn oil, is now being supplied by E. R. Squibb & Sons, New York, in two forms—Solution Vitamin K Concentrate Squibb, in 20 cc. vials, each cc. containing 1,000 Ansbacher units of Vitamin K, and Capsules Vitamin K Concentrate Squibb in bottles of 25, each capsule containing 500 Ansbacher units.

PAREDRINE

Altschule and Gilman point out that paredrine (p-hydroxy-*a*-methyl-p h e n y l-ethylamine hydrobromide), a drug recently introduced, has a powerful pressor action due to stimulation of the smooth muscle of the arterial wall and is effective when given by mouth, intramuscularly or intravenously. Good pressor effects are obtained with 20 or 30 mg. orally, 10 or 20 mg. intramuscularly and 5 or 10 mg. intravenously. These results suggested that the drug might be useful in correcting the fall in blood pressure observed during spinal anesthesia. The purpose of the present communication is to report the results obtained with paredrine in fifty cases. Measurements of pulse rate and blood pressure were made every five minutes; when the latter fell markedly, paredrine was administered in doses of 10 to 20 mg. intramuscularly or 5 to 10 mg. intravenously, or both. In every case the administration of paredrine was followed by a return of blood pressure to a satisfactory level. The pressure usually began to rise within five minutes after the intramuscular injection of 10 mg. of the drug; if no rise was noted at this time, a second injection of the same dose was given. This invariably secured the desired result. The authors conclude that paredrine is useful in raising the blood pressure to satisfactory levels if it becomes unduly lowered by spinal anesthesia. The pulse rate is maintained at, or returns to, levels obtaining before the induction of spinal anesthesia. Paredrine has little or no direct effect on the heart, its direct action being apparently limited to the peripheral vessels. No untoward effects have been noted after its administration. *N. E. J. Med. vol. 221, p. 600.*

SPOTTED FEVER SERUM

Serum that may prove a cure for dangerous Rocky Mountain spotted fever has been made by Dr. Norman H. Topping, National Institute of Health of the U. S. Public Health Service.

The serum, so far used only on guinea pigs and monkeys, is "the first definite hope of a specific treatment for Rocky Mountain spotted fever," officials of the National Institute of Health declared.

Guinea pigs and monkeys survived usually fatal doses of spotted fever virus when treated, after they became sick, with blood serum from rabbits that had been immunized to the virus.

Public health officials hope the serum will prove as useful in treating sick humans, but that cannot be determined until more of the serum has been made.

While this serum will, it is hoped, prove useful in treating sick humans, the federal health service has recently announced a new method of making a vaccine to protect against Rocky Mountain spotted fever. Advantage of this new vaccine over the old one is that it can be made on a large scale. The difficulty and danger of making the old vaccine limited the amount that could be made, and thus its usefulness.

Neither the vaccine nor the serum, however, is yet available for general use. Further tests must still be made with them. *Science News Letter.*

SULFANILAMIDE AND TUBERCULOSIS

Follis and Rich observed the effect of sulfanilamide on experimental tuberculosis in the rabbit, and the results confirm their previous study on the guinea pig which demonstrated that adequate doses of the drug, properly administered, have a definite inhibitory effect on the development of the disease. Individual rabbits exhibit marked differences in the degree to which they acetylate the drug and in their ability to attain and maintain a high concentration of the drug in the blood following the administration of a given dose. These differences undoubtedly play a part in determining the degree to which a given dose of the drug will exert a beneficial effect on the progress of the tuberculosis in different animals. No conclusions regarding the effect of sulfanilamide on human tuberculosis should be drawn from the experiments, as that requires a separate and carefully controlled study. *Johns Hopkins Hosp. Bull. vol. 65, 466.*

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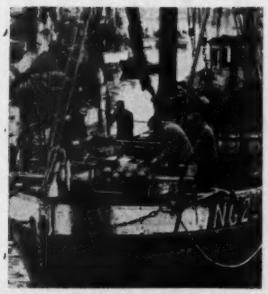

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READERS'

DEODORANT CREAM: I have been examining a number of magazines and technical books for a suitable formula for a deodorant cream (greaseless) and happened to come across one of your formulas in which you recommend glyceryl monostearate, glycerin, formin and distilled water.

I compounded the formula and the result is a cream without very much body. I also tried adding paraffin wax, spermaceti and beeswax but without very good results. I am writing you in hope that you may recommend some workable formula which will give me a cream of stiff consistency and very smooth. Thanking you for any information that you can send me. Brooklyn.

The glyceryl monostearate formula that you have tried can be made stiffer by using a great deal more, even twice as much, of the glyceryl monostearate, than is called for. The other type of cream that you have in mind is heavier, but not greaseless, since it consists of a mixture of benzoinated lard and zinc oxide.

LABEL PLACEMENT: There has been some discussion in your magazine on the placement of labels on the bottom of jars. I would like to know if the "Food and Drug Administration" has set any ruling on this matter. In looking over the "Federal, Food, Drug and Cosmetic Act," page 16 section 602 (C), it says that "Information required by the Act, must be prominently displayed with such conspicuousness as compared with other words, etc.," but it does not say that the complete label cannot be placed on the bottom of the jar, providing all required information is together.

As a subscriber to your valuable magazine, have always found it helpful and interesting. Jersey City.

The regulations that go with the "Federal, Food, Drug and Cosmetic Act," have pretty well clarified the situation you describe. The regulations specifically state that essential information must be on the label that is visible to the customer when the product is sold. It would seem to us that this would definitely eliminate the use of labels on the bottom of the jar for information required by the Act. Directions could, however, still be printed on a label of this type.

URINARY ANTISEPTIC: We are desirous of marketing a urinary antiseptic and hope you can help us with recommendations that will get by the new laws and not act adversely on the hormones we wish to include in the formula. Hollywood.

Methenamine, mandelic acid, and similar compounds have been used as urinary antiseptics but only under the direct supervision of a physician. We do not feel that it is safe or that it is possible to get by under the new Food, Drug and Cosmetic Act with a preparation such as you have in mind.

VAGINAL JELLY: As a subscriber to your journal I would like to ask you for help in making a vaginal jelly containing lactic acid. I have manufactured one type for a long time but the results are not very satisfactory. A formula or advice would be greatly appreciated. Buffalo.

A jelly of the type you are interested in can usually be made by the use of sufficient gum karaya to give the proper consistency. Mix four parts of the powdered gum with about ten parts of alcohol and pour the mixture quickly into 83 parts of water and three parts of lactic acid. It may be advisable to dissolve about one-tenth of one per cent. of a suitable preservative in the alcohol. After standing for a few days the jelly should be satisfactory. A cream may be made by the use of an acid emulsifying agent and seems to be as generally acceptable as the jelly.

OILY PERMANENT WAVE: I am interested in preparing a permanent wave solution of the cloudy or oily type that contains enough oil to be beneficial to the hair and keep it soft during and after the permanent wave. I should appreciate any information you can give me in this matter. Boston.

One of the simplest ways of adding oil to a permanent wave solution is by the addition of about one ounce of oleic acid to a gallon of the solution. This forms an oleate that has a softening effect on the hair. If greater action is required it may be advisable to mix ten parts of oleic acid with one part of mineral oil, and add one ounce of this mixture to a gallon of permanent wave solution.

COLOR RINSE: Please advise us if you know of any product that can be used to assist in setting or fixing the color in the hair when an ordinary color rinse is used. We find that in most cases the color rinse washes or rinses off very easily, and we would appreciate it if you could suggest something that could be mixed with a powdered color rinse that would help in setting or fixing the color. Minneapolis.

Depending upon the color used in the hair rinse it might be possible to use a mordant to fix the color to the hair. How effective this would be there is no way of telling until you have made proper experiments. The procedure, in the dye industry, is to treat the fabric first with tannic acid for some types of dyes or with aluminum hydroxide with other types, and then immerse the treated fabric in the dye solution. The dye and the mordant together form an insoluble mixture that is held very firmly by the fabric which would not otherwise hold the dye. Some modification of this procedure might be helpful in your instance.

QUESTIONS

PINE BATH OIL: I am very much interested in receiving a formula for a good pine bath oil. Albany.

Pine bath oils can be made by mixing together one part of pine oil and three parts of a good quality sulfonated castor oil. In the current issue of this magazine, in the "Compounder's Corner" section, a new dispersing agent especially suitable for bath oils is described.

SUPPOSITORY BASE: We intend manufacturing suppositories for hemorrhoids, but do not want to use cocoa butter as a base. What we want is a non-fatty base. Could you supply us with such a formula or could you refer us to some manufacturer of this base? Any information with respect to this subject would be highly appreciated. Mexico City.

The propylene glycol ester of stearic acid has been highly recommended for the purpose you have in mind but unfortunately its use is protected by patent. Possibly glyceryl monostearate may be satisfactory or a mixture of this substance with other materials to lower its melting point will give you the proper suppository base.

EMULSIONS: I am very much interested in several statements which were made in articles appearing in the Drug and Cosmetic Industry Magazine. One of these is that the correct amount of borax to use in a cold cream is about six per cent. of the amount of beeswax present. On what is this statement based and was the proportion arrived at by experimental methods? On another occasion it was said that a pH of 9.17 or greater gives best results in emulsification. Is there any experimental basis for this statement? Baltimore.

The proportion of borax corresponding to beeswax is based on theoretical grounds, namely, the acid value of U.S.P. beeswax. Beeswax is permitted acid values between 18 and 24 which means that one gram of beeswax will be neutralized exactly by 18 to 24 millograms of potassium hydroxide. This corresponds to 16 parts of beeswax to one part of borax for exact neutralization. Less borax than this will not fully utilize the emulsifying power of the soap that could be formed from beeswax, fatty acids and borax while more borax than the required amount will only make the cream more alkaline without contributing to stability.

The statement concerning pH 9.17 was a quotation which we do not consider to be necessarily true. Stability of the cream depends upon the type and amount of soap or other true emulsifying agent present along with the type and amount of auxilliary emulsifiers. If the emulsifying agent is acid in nature, then the product is most stable in the acid range, etc. In this case probably a soap was formed which was most active at pH 9.17.

CITRATE OF MAGNESIA: Can you give us any information or direct us to the proper source where we may secure information on the manufacture of U. S. P. Citrate of Magnesia, which will not precipitate within a reasonable length of time? Denver.

Some time ago there were articles in the Journal of the American Pharmaceutical Association, describing, as we recall, the use of buffers to prevent precipitation in citrate of magnesia. These articles have been covered by patents and are therefore not available to you. It is therefore evident that the subject is a complicated one and not to be covered by any simple statement.

MASSAGE PREPARATIONS: We have formulas for tissue builder and massage lotion but without directions for mixing. We enclose these formulas and trust that you will be able to help us out with proper directions. Norfolk.

In the first mixture the bentonite is added a little at a time to half of the water in which the salt is dissolved. Keep stirring while adding the bentonite until a smooth mixture results. The gum may be added to the rest of the water in the same way or may be heated gently with a small amount of water until a homogeneous paste results. The paste is then mixed with the balance of the water. The bentonite and gum solutions are then mixed.

Your cream formula is a regular absorption base product. The oil and absorption base are melted together and allowed to cool until they are only slightly warm. The formaldehyde, liquid soap, and lactate are mixed together and then stirred, a little at a time, into the absorption base. Continue stirring after all of the aqueous solution has been added.

SOAPLESS OIL SHAMPOO: I have been using a sulfonated oil shampoo formula and find that the shampoo does not remain clear. During cold weather it becomes cloudy on standing. I am using distilled water, ethylene glycol, U.S.P. mineral oil and high qualities of sulfonated castor and olive oils. What modifications can I make to keep the mixture clear? Los Angeles.

The obvious solution to your difficulties is the use of considerably more of the ethylene glycol than you are now using. The best way to determine the proper amount to use is to make several mixtures containing five, ten, and fifteen per cent., respectively, of ethylene glycol and setting the mixtures aside in the refrigerator. The one containing the least amount of ethylene glycol that still remains clear is the mixture to be adopted for further use.

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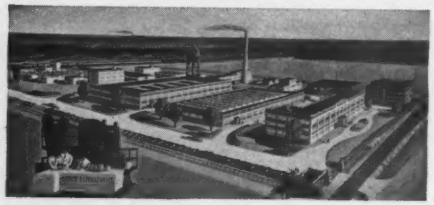

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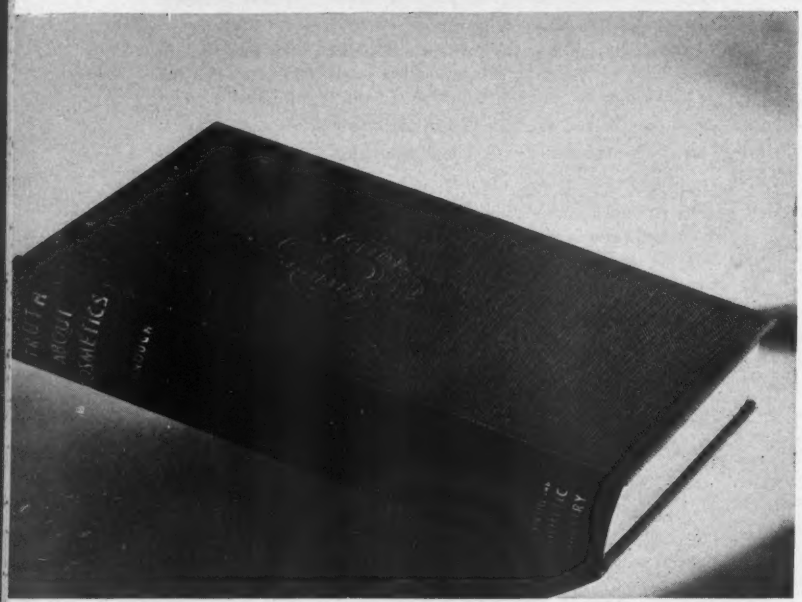

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Anise oil 1c
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Pimento leaf oil 10c
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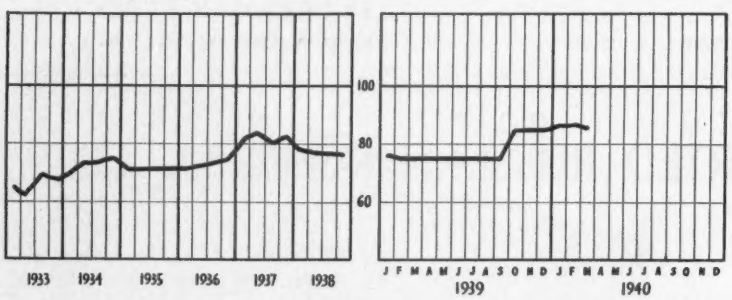
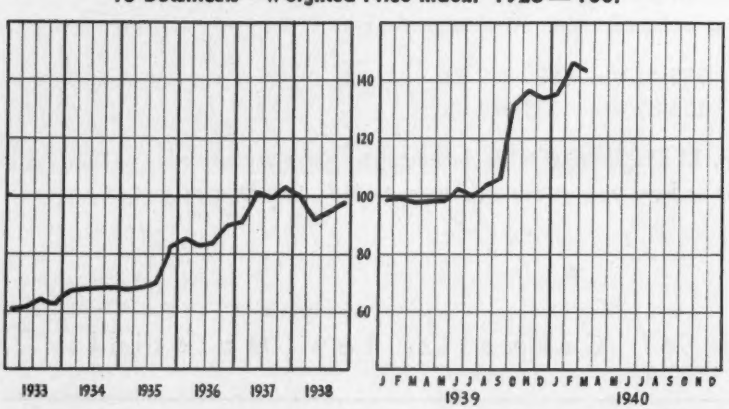
25 Cosmetic Raw Materials—Unweighted Price Index. 1926 = 100.



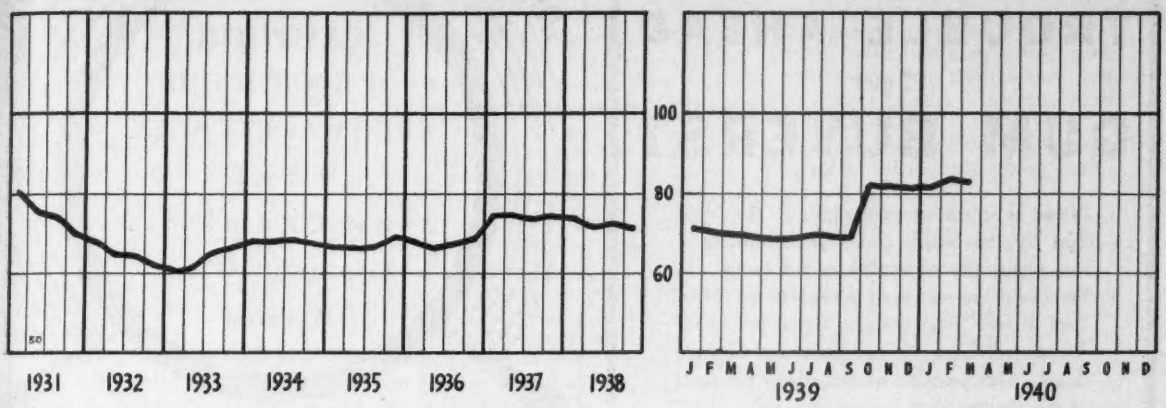
The cosmetic raw materials index declined from 86.8 to 85.8. Gum arabic was 2 cents lower at 33 cents; balsam copaiba declined from 32 to 30 cents; balsam peru declined from $1.20 to $1.05; balsam tolu increased 5 cents to $1.00; Japan wax was one half cent lower at 15½ cents; menthol declined from $3.75 to $3.65.

15 Botanicals—Weighted Price Index. 1926 = 100.



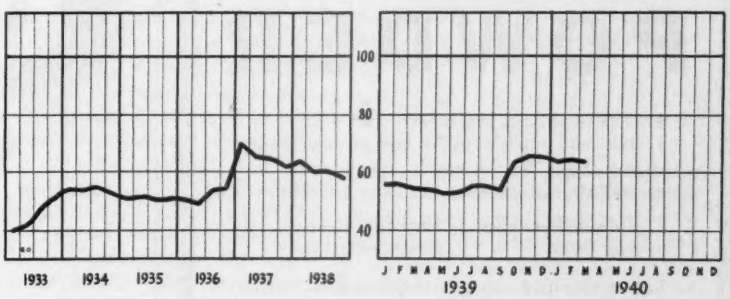
The botanicals index declined from 146.2 to 143.8 for March 1940. Agar was 5 cents lower at $1.45; aloes declined 4 cents to 44 cents; balsam tolu increased from 95 cents to $1.00; belladonna was 7 cents higher at 30 cents; cascara declined from 16 to 15 cents; ipecac rose from $1.10 to $1.20.

50 Raw Materials—Weighted Price Index. 1926 = 100.



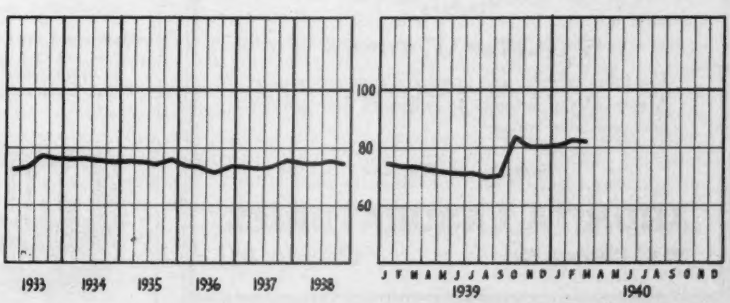
Generally lower prices resulted in a decline of the fifty commodity index from 83.8 in February to 82.9 for March. Demand for drug and cosmetic raw materials during the past month can be classified as moderate. There were no new developments either at home or abroad which would exercise an undue influence on the price structure. Mercury was the only single item which was forced sharply higher by extra heavy purchases from the Cartel in Europe. Most of the production of both Spain and Italy for this year was earmarked for shipment to countries now at war.

15 Essential Oils—Weighted Price Index. 1926 = 100.



The essential oils index declined from 64.2 to 63.2. Anise oil declined from 73 to 72 cents; cananga was 5 cents lower at $1.70; citronella declined from 45 to 40 cents; clove oil was 2 cents lower at $1.33; eucalyptus oil rose from 57 to 68 cents; lemon oil declined 10 cents to $3.00.

15 Medicinal Chemicals—Weighted Price Index. 1926 = 100.



The medicinal chemicals index declined from 82.4 to 82.0. Menthol declined from $3.75 to $3.65; mercury increased from $175.00 to $182.50 a flask; quinine sulfate was 4 cents lower at 64 cents. Chinese menthol continued to be of particular interest in the spot market. Both this grade and the Japanese natural material were selling here at prices considerably below the replacement market.

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COD LIVER OIL

Cod liver oil continued at high levels during the current trading period. Prices ranged from $33. to $35. per barrel as to brand and quantity. The spot market was fully supplied however. Buyer's asked what effect the war will have on Norwegian production. It seems a foregone conclusion that English production will be nominal. Efforts in Great Britain seem directed toward producing enough medicinal cod liver oil to meet home requirements. It is this uncertainty which kept the New York market firm during the period of waning consumption.

In the four or five years prior to the outbreak of war, British cod liver oil production had developed from an insignificant industry producing a by-product suitable only for industrial purposes, into the world's major cod liver oil industry. In the first seven months of 1939 Hull and Grimsby sold nearly 600,000 gallons of cod liver oil to the United States (which consumes half the total world production). This figure was almost twice that of the corresponding period of 1938.

Much of the development which has occurred and has resulted in the rise of a vigorous new British industry arose from the protection afforded by the duty levied on cod liver oil of non-Empire origin under the Ottawa Agreement of 1932. For example, within two years of the institution of the duty the port of Hull alone was producing more genuine cod liver oil of a medicinal grade than the whole of the Norwegian production, while just before the war the total British product amounted to more than one-third of the total world's production of cod liver oil.

In more recent years German production figured very prominently in world supplies and reached a total just before war broke out of about 10,000 tons per annum. War has created very difficult circumstances not only for the British industry but also for the world's markets. Norwegian, Iceland and Newfoundland production may remain relatively unaffected or may even increase. From these sources some 14,000 to 15,000 tons annual production may be expected as against a pre-war total world's production of about 35,000 to 40,000 tons. The German production has been, presumably, eliminated altogether, while the British production is not yet in an appreciably better state.

Even before the war a good part of the more effective fishing and oil-producing units of the British fishing fleet were withdrawn for service in the navy. With the outbreak of war fully 90 per cent. of these ships were withdrawn, and for a period both fishing and oil production almost entirely ceased. The new mine menace has still further complicated the situation and there have been further withdrawals, though these have not fallen so heavily on the same class of vessel.

The production situation has eased lately, however, through the transfer to this service of old and obsolete vessels, some of which have been practically salvaged from the scrap heap. Taking everything into account it seems possible that enough cod liver oil will be produced by British sources to take care only of home requirements. This applies primarily to medicinal grades of oil. It may be necessary for England to draw on Norway for poultry grades and even some of the higher qualities. The extent to which this may be necessary is very important to other consuming markets which, it is most likely, will have to depend next winter almost entirely on Norway.

Bad weather handicapped Newfoundland winter cod fishing on one section of the coast, but the catch is believed to have been sufficiently large to tide cod liver oil refiners over until the new season's fishing starts in May or June.

Refiners and exporters state that prices for Newfoundland oil laid down in New York City are still too low to afford a fair margin of profit to the producer, and that with better prices, the output will, no doubt, increase substantially, as a larger number of refiners may be expected to participate. With better prices, it is stated, livers that are now being sun-rendered for technical grades of oil, will be utilized for the manufacture of medicinal grades.

ALOES

A decline in the primary market price of Curacao aloe came on the market as somewhat of a surprise. The crop is said to be larger than was expected. The spot market declined in keeping with the replacement market with the range now prevailing at from 44c to 49c per pound.

The name aloe embraces a large number of succulent leaved plants native to tropical countries. Most of these have showy flowers, and many are cultivated in hot-houses. Curacao aloe is collected in the Dutch West Indies by workers during the early spring. The leaves are cut off their bases and placed cut end downward in V-shaped troughs which are arranged on an incline. The juice, in trickling from the leaves, runs down the sides of the trough and through an aperture at its lower end into a receptacle beneath.

As the receptacles are filled with the juice, their contents are poured into a cask and either evaporated spontaneously or by boiling in copper vessels. As soon as the juice has thickened to the proper consistency, it is poured into gourd shells or boxes and allowed to harden. This aloes is shipped direct to the United States from Aruba, Curacao and Bonaire.

MENTHOL

The market here was so slow that, speaking of new business, it was characterized as deplorable. Arrivals were plentiful during the month but this material was taken up by contracts entered three or four months ago. Manufacturers are well supplied for the balance of the heavy consuming season.

The situation in general is still somewhat confused by the fact that the spot market is considerably below the replacement market. This is particularly true of Japanese natural menthol which is currently offered here at from $3.65 to $3.75 per pound in case and less than case lots whereas the cost to replace is approximately $4.60 per pound. Chinese material is currently offered at $2.90 per pound with the cost to replace put at $3.00.

Chinese menthol is still the subject of considerable discussion here. During the period January to November 1939 inclusive, receipts from this source amounted to 61,500 pounds as compared to total receipts from China during 1938 of only 20,100 pounds. The price at which this grade, comparable in every way to the Japanese natural material, is offered in New York, has created wide interest on the part of important manufacturing consumers.

Although the imports of Chinese menthol last year were in important volume the schedule of arrivals for January-February-March, 1940, are particularly heavy. This material is to arrive against October-November-December contracts. It was authoritatively stated in the trade that, before the end of the present crop period in September, total arrivals of natural menthol from China will rank well up to the total arrivals from Japan for the same crop period.

CAMPHOR

Up to the end of September, 1939, Japanese exports of natural camphor had an estimated average monthly value of 400,000 yen, but October saw an advance in the value of the trade to 1,023,000 yen, this rise being directly reflected in the quantities involved, since there was no alteration during the month in f.o.b. values. The export call for natural camphor has since become still further accentuated. It is stated that the Japanese Ministry of Finance has decided to establish, under the management of the Formosan Government-General, extensive camphor plantations in China. Prior to the opening of Japan to foreign trade, China and Burma were the only producers of camphor for the world markets; and the decision of the Japanese authorities to re-establish the Chinese industry can only have been taken in the conviction that production costs are likely to be considerably lower than they are in Formosa.

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MERCURY

Still another advance was noted in the price of mercury metal. Domestic material is now being offered at as high as from $180. to $185. per flask. As previously reported many manufacturing consumers are still looking for a reaction. This may account for the fact that during the past month, with raw material at such exceptionally high levels, there was no upward revision in the price of derivatives. Naturally, mercurial salts are very firm, but there are no price changes to record at this writing.

Italy and Spain, holding a key position in the situation because of the large production in those countries, already have sold out their 1940 production, reliable metal trade quarters reported here. In the last few weeks, these concerns said, the joint Italian-Spanish mercury cartel cleared a record sales volume of 162,000 of the 76 pound mercury flasks. These sales generally were made at an all-time high price of $200 per flask, f.o.b. Spanish or Italian ports, with some price shading for special customers such as the German government.

Most of the metal, it is understood, went to the belligerent powers, partly for munitions purposes and partly as an anti-fouling paint far warship bottoms.

With the two leading sellers practically out of the market for the balance of the year, Lodnon is now being flooded with offers of lower grade mercury from the United States, Mexico and a number of British Empire sources, including New Zealand, which turned out only 150 flasks of the metal during the world war.

OLIVE OIL

There are prospects of bumper crops of olives in most of the principal producing countries in 1939-40. An estimate from a reliable source is that the total output of olive oil will exceed that of the preceding season by about 25 per cent., and will exceed the average annual output for the quinquennial period ending with the 1938-39 season by about 12½ per cent. In view of the conditions created by the war, it is not possible to form a reliable estimate of the quantities which will be available for export from the producing countries, but the prospects are that the proportion of exports to output will be much smaller than in ordinary times.

LEMONGRASS OIL

The spot market for lemongrass oil was lower at from 75c to 80c a pound as competition widened. Sellers in the trade are expecting a lower replacement market.

PSYLLIUM SEED

Psyllium seed is an item which not so long ago was continually in the news because of the publicity and wide acceptance which it enjoyed. Although not so much is heard of it today it still bulks large in the total of all botanical imports. The current spot market for psyllium seed is quite favorable and, although the black seed, favored in many quarters, comes from France a further factional decline was noted during the trading period under review. This quality material is now available at from 18½c to 19½c per pound. The blond, or Plantago seed, from India is also at levels favorable to consumers with the price range now at from 8½c to 9½c per pound as to quantity.

Official data are not available, but estimates indicate that the 1939 psyllium seed in France yielded from 175 to 200 metric tons. One large dealer believes that it ranged from 250 to 300 tons. This was somewhat larger than the estimated yield of from 80 to 90 tons in 1938, but still well below the average for the past ten years. From 1929 to 1938, inclusive, the psyllium seed yield of France averaged around 785 tons per annum, with the output going as high as 2,500 tons in 1932.

Up to January 1, 1940, some 80 to 100 tons of the 1939 crop had been sold, and at that time approximately 30 tons were in the hands of dealers in Marseilles.

Owing to recent price rises, it is believed that 1940 plantings (in February and March) will be more extensive provided labor shortages do not develop. Some dealers estimate that the 1940 yield may reach from 300 to 400 tons, assuming that present prices hold.

A report from British India states that psyllium seed holdover stocks from the last crop (March, April, May, 1939) are estimated at around 300 long tons. Dealers are stated to be holding for higher prices. Estimates that would indicate the size of the 1930 crop are not yet available.

ERGOT

No change is noted from the high prices prevailing on ergot. The spot market continued at a range of from $3.85 to $4.00 per pound. Foreign stocks are strongly controlled and it will be a long time before new production is available. An abnormally high market seems inevitable.

Spain and Portugal are the leading producers of ergot. Russia has ceased to be an exporter, not only because of home requirements, but due to improvement in rye crops in that country. Germany is also out of the picture as a source. It is true that most of the ergot obtained from Germany in past years had its origin in one or other of the countries named above but at least the United States cannot look to Hamburg for supplies until after the war.

Spain is now busily engaged in reconstruction. What stocks are available there are held in strong hands and there are indications that the Government is exercising some influence regarding export prices on many commodities. At any rate it will be next fall before a new crop can be collected. A shortage of labor due to concentration on reconstruction work might seriously affect production of ergot.

Ergot is a fungus growth on rye. The labor envolved in picking it is considerable and the returns to those involved quite meager. Leading import factors were unanimous in there opinion that the market would continue to show strength until such time as conditions in Europe become more nearly normal.

IPECAC

Ipecac root was characterized by a rising market during the current trading period. Spot sales were made at from $1.20 to $1.25 per pound with powdered material selling at from $1.35 to $1.40 per pound. These prices applied to root from Nicarauga. Brazilian material was almost impossible to get. Costs for this grade were sensationally high.

Ipecac consists of the dried rhizome and roots of Cephaelis Ipecacauanha, known in commerce as Rio or Brazilian ipecac, or of Cephaelis acuminata, known in commerce as Cartagena, Nicaragua, or Panama Ipecac. The most abundant growth of the drug is to be found in the interior of the Brazilian province of Matto Grosso. It is this grade that is so very scarce.

The "poayeros," as the collectors of the plant are called, skillfully cut off the root, taking care to leave part of it in the ground, afterwards they carefully fill the hole again with earth. By taking this precaution, it is said that after three or four years a new crop may be gathered at the same spot. A skilled poayero collects thirty pounds a day, but the average is not more than six to ten pounds a day.

The root is dug all the year round, but especially in the months of January and February, when the plant is in bloom. It is said that, owing to the vicious system of collection, the plant has become scarce in the vicinity of large cities such as Rio de Janeiro. Attempts have been made by the British to transfer the cultivation of ipecac to India, but these seem not to have been successful.

BALSAMS

An easier market developed on the balsams. Copaiba was lowered on spot to a basis of from 30c to 35c per pound. Peru was shaded to a range of from $1.05 to $1.10 per pound. Tolu, however, was firmer due to the lack of substantial offers in the primary market. Minimum was $1.10 with the range upward to $1.20 per pound.

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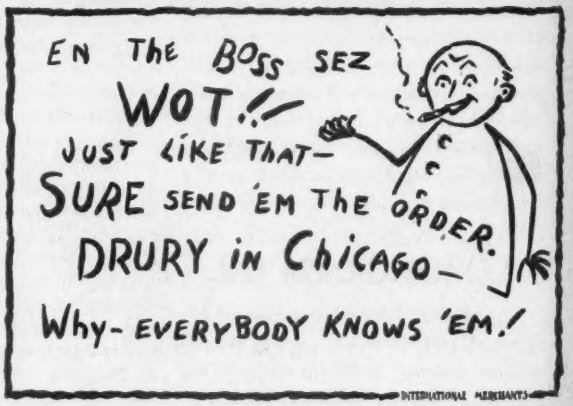

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